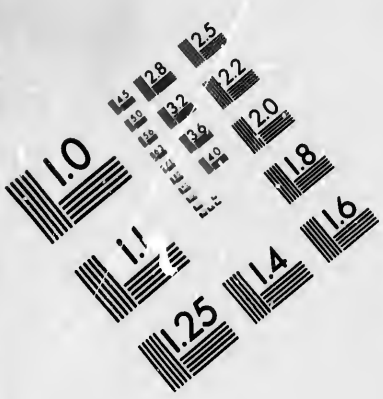

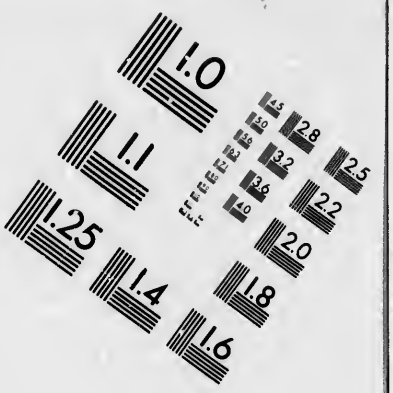

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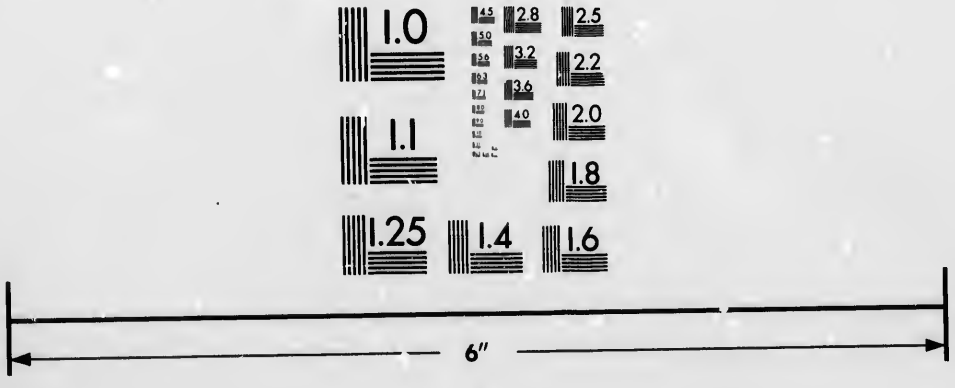

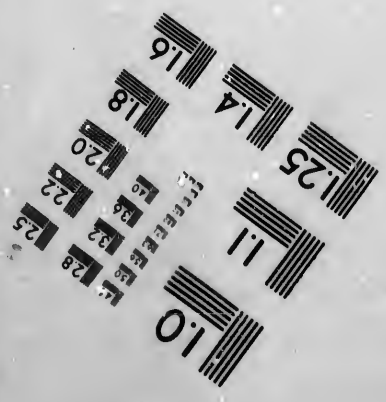

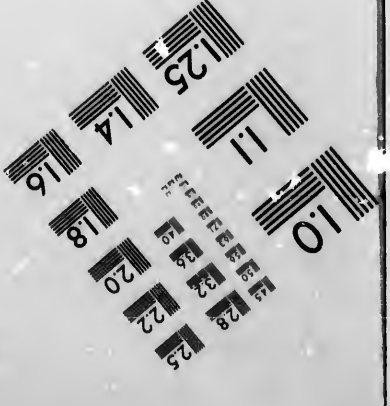

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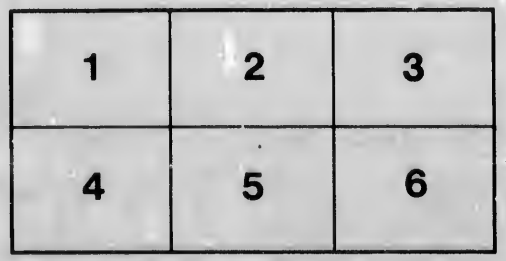

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DYSPEPSIA,

AND ITS

KINDRED DISEASES.

BY

DR. W. W. HALL,

Author of "How to Live Long," "Fun Better than Physic," "Health by Good Living," etc., etc.

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INDEX.

PUBLISHER'S PREFACE.

"KNOW THYSELF" is a maxim as fully applicable to one's physical system as to one's moral nature. And yet how great is the number of people who are blindly ignorant of the rules of health. Dyspepsia is one of the most common, as it is one of the most distressing, of human ailments. There is no need to depict the miseries which are incident to it. And yet it may not only be prevented by careful habits of living, but effectually cured. Dr. W. W. Hall, of New York, for many years editor of the *Journal of Health*, and the author of several works on hygiene and medical treatment, wrote this book for exclusive publication in Canada and the United States by our house; but though he had completed the writing of it, he did not live to read all the proofs. As the last production of so eminent a specialist, it will have exceptionable claims on the public. Apart from this, however, it will be found to be a book of rare merit, giving full detailed instructions regarding Dyspepsia, which, if followed, must result in the alleviation of a great amount of suffering.

Toronto, February, 1877.

DYSPEPSIA.

A gentleman's younger daughter had been a sufferer for several years, had taken a great deal of medicine from numerous physicians, had been abroad travelling through various European countries in search of health, but had returned home not materially benefitted, and became such a sufferer that some anxiety was felt as to the result. The family was one of social position and means, and lived in a part of the city so well situated for convenience and healthfulness and desirable surroundings, that it might have been considered a mystery why, with all the additional advantages that money could procure and facilities for all sorts of exercise on foot, or horse, or carriage, with the Central Park near at hand, and opportunities for every kind of diversion, and books and periodicals, the sympathies and visits of friends, with domestic relations, surroundings, and associations seldom equalled—why, with all these, the young lady yet

in her teens, was not only not improving, but was becoming more and more a sufferer every day, not only from her original malady, but from ugly complications very naturally arising therefrom.

The patient was confined to the house and her bed; in person approaching to tall, in a lady; pale in face, slim in body, and wasted generally; the skin was fevered and the pulse fast and weak; no appetite, no strength, no ambition, no courage, and without that force of will so necessary as an aid in getting well from any disease. She seemed to have suffered at one time or another almost every ailment possible to the human body, in a greater or less degree. She could not even drink a cup of tea, take a glass of the purest and freshest milk, or sip a little cold water, without more or less suffering at times.

One thing was clear, she had no cough, no consumptive disease, no organic malady, no heart affection; nothing that threatened life. In short, it was a plain case of an aggravated form of dyspeptic disease; made worse ever yday literally, by a persistent forcing on the stomach, what was inevitably followed by human agony; such dreadful head-aches, such unendurable pains in the stomach, which only persistent drinks of brandy

suffered so greatly; had such violent stretching out of the arms, and, at times, fainting away, that life seemed undesirable even if possible. A minute examination of the case and its history from the beginning elicited the information that all of the following symptoms, in varying intensities and at irregular intervals, had presented themselves, and for convenience of reference are placed in alphabetical order, but not in that of their appearing; this was learned from the lady-like and intelligent mother, who was also the devoted nurse:

Acidity,	Flushings,	Pain, sharp
Appetite excessive,	Fulness,	Palpitation,
Appetite fitful,	General distress,	Rumination,
Appetite vitiated,	"Gnawing" sensation,	Sinking,
Appetite capricious,	"Goneness,"	Skin, dry
Appetite wanting,	Haggard face,	Skin, harsh
Bad taste,	Head-ache,	Skin, hot
Belching,	Heartburn,	Sleep, often restless
Burning in throat,	Heaviness,	Sour stomach,
Burning in stomach,	Load at stomach,	Stretchings,
Cold feet,	Nausea,	Tenderness at stomach
Costiveness,	Nightmare,	Tongue white,
Distension,	Oppression on chest,	Ugly dreams,
Dizziness,	Pain in bowels,	Wakefulness,
Emptiness,	Pain, dull	Water-brash,
Eructation,	Pain, gnawing	Weakness,
Flatulency,	Pain, griping	Weight at stomach.

In addition, there were diseases of the mind, not the less distressful from their being denominated nervous; for all suffering is nervous, all feeling is nervous—that is, in the nerves.

MENTAL SYMPTOMS.

Cryings,	Fretfulness,	Nervousness,
Depression of spirits,	Forebodings,	Self-distrust,
Despondency,	Irritability,	Want of energy,
Discouragement,	Moodiness,	Want of decision.

Two things were clear: the disease was indigestion and that the young lady would get well, provided she would co-operate with her physician in the means which would be proposed from time to time. Within a month she had nothing to complain of, except that she could not get enough to eat; no head-ache, no distress after meals, sleep sound, bodily functions requiring no attention.

The object of this book is to give information, plain, exact, practical, so that it can be consulted for the reader's benefit, personally, if he is a dyspeptic. The key to the cure of this interesting young lady was found in a single remark of the mother—that she had been living largely on sweet milk, as it was thought that it was the most natural and healthy food; sometimes a quart or more a

day, although she detested it and wanted every cow in the universe to get as dry as a bone and remain so forever: not only because the milk was distasteful to her, but because of the inevitable distress and torment which followed; in fact, almost everything taken into the stomach distressed and sometimes almost crazed her. The only thing the physician had to do in this case was to find something which she could eat that would not distress her.

As she was exceedingly thirsty, and milk, and tea, and even cold water, were causes of great discomfort, while spirits of every description were inapplicable, the way was clear and plain—not to drink anything, and this is often an essential element in the cure of dyspepsia; especially to forbid fluids at meal-time, because by diluting the food-dissolving liquids in the stomach, their power of digestion is lessened, when the great, the essential, requirement is to increase the digestive power, if possible.

An important element in the cure of dyspepsia, is to keep the mind of the patient in a comfortable condition, to keep up the spirits; for this promotes the more natural, the freer circulation of the blood, drives it out from the heart. All know that the

heart, the pulse, beats faster while exercising the body, and so do they beat faster from exhilaration of the mind, as may be tested any hour in any person. Let any one, man or woman, sit two or three hours or more, pretty much alone in the house, of a rainy day, nobody to talk to, nothing to do, tired of reading and tired of work, depression of spirits will creep over the mind, the pulse is going to sleep and the blood is becoming stagnant; let a lively, cheerful visitor, or some dear friend or relative, unexpectedly come in, and there will be such a joy and animation that the heart throbs apace, the pulses beat to a new life, flushing the face and sparkling the eye, and driving the life currents tingling to the very ends of the fingers and toes, and in larger proportions to every part of the body, and to the stomach as well. But it's liquids, the gastric juices, which dissolve and digest the food, are made out of the blood; and the more blood, the more gastric juice, and the more easily, and perfectly, and healthfully is the food prepared for giving nourishment and strength to the system; not being thus easily prepared, is dyspepsia or indigestion — two words meaning the same thing, the former being of Greek origin, the latter Latin.

These statements are made to show how it is that a pleasant state of the mind of a dyspeptic aids in the cure of his disease, and what a large influence it may have in promoting recovery to do all that is possible in studying out ways and means of diversion waking up hopeful and joyous feelings. This is an important element in the removal of all human maladies, but exceptionally so in dyspepsia, because there are so many ailments to contend against. It is not one discomfort or pain in one part of the body, but in many—so many sometimes as to cause an almost insupportable miserableness in the whole system, corporeal and mental.

HUMORING.

It has a great good effect to humor the patient generally, to fall in with what are called his "notions," provided they do not interfere with the treatment. All know that it is better not to irritate a drunken man or a maniac unnecessarily. It is useless to endeavour to turn off a complaint by an impatient word, or wave of the hand, or contemptuous sneer; to call it a mere figment of the imagination; to say that it is "nervous;" for whether nervous or imaginary, there is just as much discomfort, or annoyance, or torment, or

actual pain, as if it were a reality, and just as complete a prevention of all bodily and mental comfort.

To "humor," to fall in with the peculiar or singular views or hallucinations of a patient, is sometimes to cure. It is unquestionably true that every dyspeptic is the subject of whims, and caprices, and notions, more or less distressing; in fact, unmistakable insanity is often a result, an insanity so complete as to lead to suicide. Many a physician has been made the recipient of the confession either of the fear of suicide or of its contemplation; and many a man has been fretted out of the world by his own hands from either inability to endure the depressions or the tortures of dyspepsia. Hence, it is a humanity on the part of those who are associated with a dyspeptic to "humor" him; to fall in with any innocent notions, however absurd they may be, and never attempt argument, or opposition, or ridicule; for, in reality, the prevailing state of the mind of the dyspeptic for days and weeks sometimes tends to make him as really an unaccountable being as if he were insane; and as much may be done by acquiescing as with a maniac.

A CASE.

A titled English lady was one day in her reception-room in expectation of some visitors; she sat

in her arm-chair elegantly dressed, a snow-white article of apparel falling on her person, from her chin, making a striking contrast with other parts of her clothing. Just at this juncture a gentleman came in, closed the door, and, putting the key in his pocket, turned to the lady, who was his mother, and said:

"Mother, I am going to cut your throat."

"Not now, my son; it would be a pity to soil this beautiful white handkerchief with blood; I will go up stairs and get a coloured one, and it will not show so much."

The mother knew her unfortunate child, had studied all his moods, and had schooled herself into a perfectly calm demeanor under all emergencies; hence was able to answer in a way so natural, so undisturbed, and so reasonable to his weak mind, that it threw him off his guard, and he instantly unlocked the door, saying:

"Yes, true, mother; go up stairs and get another," thus affording an opportunity to have him taken in charge.

A man having a nose larger at the end than was natural to him became a victim to the hallucination that a large bottle had grown on to the extremity of his proboscis, to the great annoyance

of his family and friends. Argument, contempt, ridicule, only confirmed him in his convictions, until it became in him a subject of incessant complaint, mortification, and alarm, for he said the slightest stroke upon it would break it all to pieces, and he would bleed to death. At last it was determined to consult a distinguished physician of a distant city, who, having duly listened to an almost interminable history of the case, said to the astonished relatives present: "Mr. H. is perfectly right; it is you who are mistaken; don't you see the bottle just there? But I will take it off." So, arranging a case of instruments, placing the man in a surgeon's operating chair, throwing the head so as to rest on the back, and tying a towel in a way to cover the eyes, he manipulated awhile, then instantly a stroke, a clash of broken glass scattering upon the floor in a thousand fragments, and all was over.

The man's eyes were unbandaged, there were the pieces of the broken bottle; he could feel nothing on his nose, he was satisfied of the completeness of his cure, paid his fee, and went home with a mountain weight off his mind, a happy man.

The principle is exemplified in minor cases almost every day in city practice, when the physician

discovers mere "notions" and gives bread pills; or, as in the case of Mr. Abernethy, one of the most skilful physicians of his time, when consulted by a gentleman whom he discovered to have dyspepsia and that no medicine could cure him, advised him to visit Mr. Andrew Robertson, a descendant of Mary, Queen of Scots, and of the clan of Struan, who had peculiar skill and remarkable success in such cases. The patient left London next morning on horseback; there being no railroads in those days, and the roads were difficult. After several months' absence, the patient returned and called on Mr. Abernethy in almost uncontrollable wrath, with the information that he had visited the place and found that no such person lived there, nor ever had; and that he had spent weeks of travel in endeavoring to find him, but no such physician was known in all the north of Scotland.

"But, tell me, how is your health?"

"O, I'm perfectly well, but I don't like to be made a fool of in that way, sir, and I won't put up with it."

"But, sir, you came to me to know how you might get well. I saw that yours was a case which medicine could not cure; that you wanted air and exercise, and an object in view, and I believed that

the plan proposed would secure the desired end; and such has been the result. What more could you want?"

A new light broke in upon the patient's mind, and, making suitable apologies, he paid a handsome fee and left, believing, as many others did, that Mr Abernethy was one of the greatest doctors in the world.

This incident is narrated for two reasons: First, to show that medical men of large experience find it advantageous to fall in with the prejudices of the weak-minded, made weak by disease, or to put them on methods of recovery without suspicion of the means. Second, the great but eccentric physician knew at that early day that medicine could never cure dyspepsia when once it got a firm hold upon the system. Sometimes it may aid in bringing about desirable results; or, in certain complications, it may be necessary and may save time; but the main fact still remains that

MEDICINE CANNOT CURE DYSPEPSI

because the gastric juice which is essential for dissolving the food and placing it in a condition to yield nutriment to the body is made out of the blood, cannot be made in any other way, and no

medicine can make blood, for it is constituted of elements found in nutritious food, and is found nowhere else, hence can be made in no other way. Thus the key to the cure of every case of dyspepsia is the healthful digestion of food, and whatever promotes that promotes the cure.

And here let the intelligent reader bear in mind that, as a necessary result of the statements made, all newspaper advertisements of medicines which cure dyspepsia are misleading, and that the employment of such remedies is worse than useless; for it not only is a waste of valuable time and a wicked waste of money, but their employment gives an opportunity to the disease to fix itself more deeply in the system, become more aggravated, and hence more difficult of cure, to say nothing of the protracted, and additional, and aggravated sufferings which the malady occasions.

In the case narrated, only a single dose of medicine was administered up to the time when it was considered that the foundation of the cure had been laid, and that nothing additional was needed but persistence and care in following out the general plan laid down.

The case is not given as peculiar or very remarkable, except for the variety of the symptoms. In

ordinary cases, there are but few sources of annoyance or discomfort. One man complains of a heavy weight at the pit of the stomach after every meal. Another has such an

INSUPPORTABLE GNAWING

at the stomach awhile before the regular time for eating that he feels as if he must take something, having found by accident that a cracker, or an apple, or a piece of bread and butter, removes the uncomfortableness. Yielding to this becomes a habit which intensifies the disease and fixes it more firmly in the system. Persons thus affected should heroically resist, and wait until the regular time of eating, and then the gnawing will gradually disappear, if other means are carried out named in these pages. Another person, a short time after he has eaten, begins

TO SPIT UP HIS FOOD.

The stomach seems to be unable to retain it, nature, in her desperation, seeming to know that there is no gastric juice there to dissolve it, casts it out of the system, as unfit for retention.

Others again soon after eating, perhaps half an hour, or an hour, or more, have no other sense of discomfort than a

STEADY HEADACHE,

which generally increases in intensity, until it reaches its highest point, then gradually disappears, and, until the next meal, the person is as well as usual. A more common symptom is frequently denominated

HEART BURN,

a popular designation which does not properly express the nature of the symptom. There is, indeed, a burning sensation at the bottom of the throat, or at the pit of the stomach, or, in more aggravated cases, extending from the stomach to the throat along the centre of the chest, caused by the fermentation of the food, which means that it begins to rot, and turns sour, hence

ACIDITY

is sometimes such a tormenting symptom that it takes away all the life and strength and energy of a man. A case of several years standing was lately presented; that of an intelligent clergyman. He had been troubled for some years and in such an aggravated form that all joyousness had disappeared from his face and such a multitude of remedies had been advised and prescribed, and

such a variety of systems of diet had been resorted to that he had lost all confidence in every form of treatment and seemed to move about more mechanically than anything else; the prominent statements were that he was near fifty years of age, had led an out door life, was of strong build, and of a make of body which promised a life of full three score years and ten, yet with all that apparent strength of body he would sometimes be compelled, while conducting religious services, to ask to be excused, and at other times would feel as if he could not live; his acidity was very aggravating, and more so in the morning before breakfast than at any other time; it was the bane of existence and he seemed to be incredulous of any mode of cure. Within a week, carrying out the principles referred to already, he was met in the street; no acidity, not a particle, the change amazing, and that he described himself as being an

ENTIRELY NEW MAN.

In reading standard works on dyspepsia, the reader will be impressed with the great variety of phases of dyspeptic disease, a wonderful combination of symptoms, and nice distinctions, but these have not been entered into, the object has been to

treat of that common form of the malady which manifests itself among the masses; which is seen in ninety-nine cases out of a hundred, organic diseases, those involving the texture of the organ, as cancer and others, being incurable, have not been considered, only those which present the ordinary symptoms as enumerated in the first pages of the book, and it is believed that if the principles of treatment which have been enumerated are carried out with reasonable fidelity a permanent cure will be the rule and failure an exception, but even in these, the amelioration of the disease will be most grateful.

It would extend beyond the intended limits of this book to treat in detail and explain the philosophy of all the symptoms of dyspepsia which have been enumerated. It was merely designed to present the idea to the reader that while all the symptoms enumerated were to be observed among dyspeptics, it was not common for any one person to have but few of them, and, sometimes, but a single one is prominent in the onset of the malady; yet, in almost all cases, if the ailment is allowed to progress, most of the symptoms will manifest themselves sooner or later.

WHAT IS DYSPEPSIA?

When a person notices that invariably after eating a regular meal, half an hour, or hour, or more, some sensation attracts the attention unpleasantly, it matters not what that sensation is,

THAT IS DYSPEPSIA,

and unless attended to will gradually grow more decided, until the torments become numerous and incessant. The uncomfortable sensation may be very slight, almost inappreciable; it may not be a single one of those which have been mentioned in alphabetical order on page 11. For example a gentleman noticed every night, an hour or two after he got into bed, his feet began to get uncomfortably warm; this increased gradually until it resulted in such an intolerable burning that he would frequently go out of doors in the dead of the night in mid-winter, and walk on the snow in his bare feet. His dyspepsia was cured and there was no more need of the purgatorial remedy, bringing us back to the bottom fact, that, whenever a man has any uncomfortableness about him at a regular time, after eating, he is dyspeptic. It is

indigestion in its first beginnings, and if then attacked it can be promptly and effectually cured, without a particle of medicine, but simply by a judicious regulation of what a person eats and drinks. If no efficient attention is paid to these beginning symptoms, they multiply in number and violence indefinitely; seldom proving fatal of themselves, but gradually undermining the constitution, making it an easy prey to some acute malady, as the result of

A LITTLE COLD,

or slight over-exertion, or mere physical accident; but whether in its beginnings or in its more advanced and aggravated forms the principles of cure are the same, requiring more or less special observance for a greater or less time, according to the intensity of the symptoms and the duration of their existence. Dyspepsia is inability on the part of the stomach to change the food introduced into it so as to yield nutriment to the body. Inability is weakness. The stomach is too weak to perform its necessary work. A servant who has been sick, but is slowly getting well, is weak, is unable to do much work, but can do a little, and do that little well; but if you give him

too much to do, more than he is able to do, he may, in his faithfulness, attempt to do it all, and he may get through with it, but, in the effort to do it all, none of it is done well. In dyspepsia the whole man is weak, every part of him, and the stomach bears its proportion of the weakness; it can work up a little food, can digest a little, and if a little is given to it, will digest it well, with the result that the blood made out of it is good blood, and gives substantial strength to the system; thus laying the foundation for recovery; for, as the body gets stronger, the stomach gets stronger, can do more work, can do it better, thus in turn imparting more and more strength to the system, enabling the patient to take more exercise, be longer in the open air without fatigue and without taking cold, and, with increasing strength, makes better blood, begins to gain in flesh, in good spirits and in hopefulness, in short is a new being.

THE FIRST STEP

then in the cure of dyspepsia is to ascertain, in each particular case, how much food the stomach can bear, what amount of work it can do, and do well. This is soon ascertained by the exercise of a close observation and a good judgment. But a

person of the humblest capacity can make a beginning at the very next meal, say dinner. First, drink nothing, not a drop of anything, not even pure water. Make no other change, but notice if there is any abatement of the symptoms. Perhaps it would be well to drink nothing at either meal for twenty-four hours, and then, whether there is any change or not, take no dessert of any kind at the second dinner; at the third, take but one kind of meat, and but one vegetable; at the fourth dinner, take no vegetable except boiled turnips, and if they produce no special discomfort, they can be eaten to advantage every day at dinner. On the fifth day at dinner, take brown bread, fresh meat, fish, or fowl, and boiled turnips, without any drink of any kind. Then, as to suppers, they should be made of brown bread and butter, or oatmeal porridge, or wheaten grits, or cracked wheat, with a little salt, or butter, or sugar, no milk or anything else; varying the article every two or three days. For breakfast about this time, take the same as at supper, adding any kind of fresh meat above named, cut up as fine as a pea, eaten very slowly, and thoroughly chewed. If, after every mouthful, a newspaper or new testament were taken up and read a few minutes, chewing all the time, it would

be so much the better, because, in the process of chewing, the muscles of the cheeks work out a certain kind of fluid, the province of which is to aid in the better and quicker disintegration, and perfect dissolution of the food into a liquid mass, depriving it of its solid quality, preparing it to be taken into the blood with all its nutritiousness.

It is to be understood that an indispensable requisite in this method of treatment, is to resolutely and most strictly avoid eating anything whatever between meals, unless it is sometimes found that part of a lemon, gradually sucked into the mouth, is palatable and refreshing, as it sometimes is; for acid is supposed to be cooling, to aid in digesting the food, and acts on the liver, thus tending to prevent sickness at the stomach and costiveness.

About this time begin to take a quarter of a pound of fresh grapes before the three regular meals, long enough to be done eating them half an hour before the meal, and increase the amount gradually until three-quarters of a pound are taken before each of the three meals of the day. Or, in their place, apples, or berries, or cherries, or currants, or other fresh fruits in their natural ripe state, may be taken; but the grapes answer a so

much better purpose, that, if within the easy means of the patient, they should be preferred. In case it is at a season of the year when the ordinary black grape is not to be had, then use the white grape, which may be readily obtained almost the year round at any good fruit or grocery store. Sometimes an orange, or two, or three, may be substituted for the grapes. But in all this course keep steadily in view the one fundamental point, whenever any symptom or sensation after eating attracts the attention unpleasantly, make a change in the quantity of the food taken at the regular meal; less and less at each meal, until no discomfort is observable. So far as to the eating; but, from the very first day of entering on the treatment, more or less of

OUT-DOOR ACTIVITIES

are indispensable to speedy and encouraging results. Never go outside of the door in the morning, at any time of the year, until after breakfast, because, in cold weather, there is a rawness and dampness in the atmosphere which tend to chill the whole body; the reaction of this is more or less of fever, which tends to impair the appetite, or otherwise derange the system, leaving the person in a more or

less uncomfortable condition for hours afterwards; if not for the whole day.

EXERCISE BEFORE BREAKFAST.

In the summer-time, going out of doors before breakfast is more pernicious than in winter, because the stomach, being empty after so long a fast, is weak, and absorbs into its circulation those malarial ingredients which enter the mouth and nose, and make their way direct into the stomach and lungs, and mingle with the blood, poisoning it in an hour, and sometimes fatally so, in proportion to the luxuriance of the vegetation, the warmth of the season, and the flatness of the country. There is always dampness in the morning air in addition to the miasmatic pollution, and both combined, acting upon a weak and empty stomach, and when the circulation is the least active of the whole twenty-four hours, the system is unable to repel the attacks of injurious causes.

THE SON OF A KING,

aged eighteen, went on a hunting excursion at a distance from home. He arrived at the hunting grounds late in the day, and put up at a country inn, saying to the landlord that he wished to take an

early ride, before breakfast. He was informed that the morning air was very injurious, and that it was sometimes even fatal to strangers; but, "boy-like," the heir apparent to the throne of Portugal said it would not hurt him; and, although he was entreated to eat at least something, he persisted in taking his hunt. In twenty-four hours he was attacked with fever, and eventually died, from breathing a miasmatic atmosphere before breakfast on a summer's morning; and there is always more or less of it in the early morning air in all latitudes south of the sixtieth parallel, hence the universal idea of the healthfulness of the early summer morning air is a myth, an absurdity, because it is demonstrably dangerous, and dyspeptics, as well as all who are in any way weak, would do a great deal better to lie in bed on summer mornings, until an hour or more after sunrise, if they can afford it. If they are too poor to spare the time, it is their misfortune, as is proven by the result, that out-door labourers, as a class, die ten years sooner, on an average, than those who are not compelled to bounce out of their beds at daylight, and go poking about in the dark for boots, and shoes, and odd stockings, and matches, and, now and then, knocking out the few brains they have got, against the bed-post, and hurrying

to their out-door work before their eyes are fairly open. Sensible people never rise before the sun in any latitude, if they can help it, hence they live longer by a good many years, on an average, than the insensible ones.

Later chemical investigations seems to show that the injurious constituents of the early morning air are living things, cells or spores which are the "germs" or poison-producing effects, most numerous, hence most malignant, for the hour including sunrise and sunset, because, the air being cold, condenses on the surface of the earth, is thicker, as it were, just as wool or feathers are more compact at the bottom of a barrel than at the top. As the sun rises, it naturally, according to invariable physical laws, rarifies the atmosphere, causing it to ascend above the breathing point; but, as evening comes on, the air cools again, condenses at the surface, becomes heavy and damp, as the most unobservant know, demonstrating the healthfulness of the custom of taking a regular breakfast before going out of the house in the morning; and the most certain way to bring this about, as a habit, is to stay in bed until after sunrise, especially in summer time, to say nothing of its delicious comfortableness.

HUMAN DEPRAVITY,

or, at least, human perversity and obtusiveness, is not more clearly demonstrated, than in the fact that people will punish themselves in getting out of bed early, as if there was some kind of physical merit in self-denials, the more beneficial, as they are the more distressing.

Stout, strong, healthy people can afford to get up day before yesterday, if they think it important, but for all persons who live mostly indoors, if at all weak and for all dyspeptics, the rule ought to be imperative to be indoors, for the hour including sunrise and sunset, and to take breakfast before they go out of doors in the morning; and take "tea" or supper a while before sundown, especially in the summer time, or that portion of the year when fires are not needed for house-warming purposes.

More space has been given to this subject than would otherwise have been done, because of the universally prevalent idea that early rising is of itself healthful, and to convince the judgment of the dyspeptic that taking a walk or ride before breakfast is not healthful.

Dyspeptics are usually persons who live indoors, as women, or persons of leisure, or professional men, and upon such it is more imperative that outdoor exercise should be systematic and persistent and moderate.

It is always injurious to exercise rapidly or violently or continue it so long as to cause great uneasiness, the person expressing himself as being

FAGGED OUT,

because all disease is connected with an irregular distribution of the blood or violent action of the heart, which during excessive exercise throws it out towards the surface too fast, to be succeeded by an exhaustion which prevents it from throwing it out not fast or far enough, and the result is a chill; then comes a fever and a bad cold. To avoid these things and to derive the greatest possible advantage from exercise, it should be out of doors; it should be deliberate, it should be persistent, without extending to actual weariness or fatigue. The plan should be to turn back towards home, before being much tired.

If practicable, even if it requires an effort or is inconvenient, take a leisure walk, or work in moderation after breakfast, then again before dinner;

then after dinner, and, unless it is cold or raining, or otherwise inclement, a walk or a visit one hour or two after sundown is better than to stay indoors doing nothing for the long interval between supper and the hour for retiring. The only precaution needed is to keep in exercise, or dress warm enough to keep off a feeling of chilliness. There is a general impression that there is something baleful in the

NIGHT AIR;

but it is better and purer than the indoor air of the same locality, because in reality the indoor air is but the outside air contaminated with a multitude of odors coming from the cellar and kitchen and closets under the same roof. The night air under ordinary circumstances is injurious only in connection with dampness or chilliness; beside there are advantages in going out and making social visits, in that it diverts the mind from bodily ailments, makes it more elastic and joyous, promotes the circulation of the blood and forwards the process of digestion or assimilation and nutrition.

In taking these four exercises during the day, or as many of them as is practicable without making

unnecessary sacrifices, it is better to vary the form and ride, and walk and work alternately.

The looking forward to these times of exercise and the preparation for them are of themselves exercises having beneficial effects on both mind and body and disposition.

The best possible benefit from any form of exercise is derived from carrying it to the extent of causing a very slight perspiration on the forehead, if the hat is on, and then to cool off cautiously and slowly.

It is more difficult to get the average patient to take medicine than to take exercise, for it is easier to do, takes but little time, and the task is over. That is one of the reasons of the non-success of physicians in curing dyspeptic ailments: every little thing is allowed to prevent going out of doors, the slightest obstacles become mountain barriers, the dust, the wind, the cold, the dampness, the mud, the slush in the streets, the expense, the time, the trouble, engagements, and a thousand other little nothings, which, if the patient had any force of character, would be swept away as a cobweb with a dash of the hand. In fact one of the most uniform concomitant symptoms of dyspepsia

is irresolution, want of fixity of purpose, at least as to anything worth doing.

SLEEPING-ROOMS.

It is important that the dyspeptic should sleep in a good sized room, its breadth and length multiplied equalling about two hundred feet; in addition it should be on the sunny side of the house, with an open fire place, the window being open an inch or two unless the theremometer is down to thirty degrees above zero, then there is no advantage, but a positive injury, from hoisting an outside window, because that degree of cold—any cold in a chamber which will cause the water to freeze—makes the air positively poisonous, because the carbonic acid coming from every sleeper is made heavy by the cold and settles near the floor, poisoning the blood at every inbreathing. When a window is not open, the door of the chamber should be left ajar, then the air coming into the room from that point and from the crevices about the window casings will form a draft towards the open fire place and drive the carbonized air up the chimney.

Besides the regulation of the eating, and the out-door exercises, and the sleeping in dry, sunny rooms, attention should be given to

regulating bodily functions, and avoiding colds. Not that all these things are essential in the successful treatment of the ordinary form of dyspepsia, but they assist; and in most cases of sedentary persons, especially if weakened, and if they have been long ailing, it is desirable to do every little thing which is calculated to be even a slight benefit, so that all combined may make a decided impression for good and forward the desired result.

COLD FEET.

Good health, with habitually cold feet, is impossible, as it soon causes cough, hoarseness, sore throat, headache, billiousness, or other ailments.

Going to bed with cold feet prevents good sleep in adults, and is frequently followed by croup in children. It is a good plan to hold the naked feet to an open fire the last thing before going to bed, rubbing them with the hands until perfectly dry and warm in every part. It is still better to do this on first getting home at night so as to have them comfortable until bedtime. If there is no fire, dry-rub them with a coarse towel, or take a brisk walk, or wrap them up in brown paper or a

blanket, or warm the bed where they will rest with hot bricks, soapstone, wood, or water bottles then remove them, for it makes the feet tender to have them rest against artificial warmth during the night. The feet will keep warmer by stretching the limbs out straight, for the blood circulates more vigorously in right lines than curved.

There should always be a folded blanket within easy reach, in case one should wake up with cold extremities.

Sometimes red pepper or mustard in the bottom of the stockings keeps the feet warm. But it is always best that the warmth should come from within, and the first necessity is perfectly clean feet, because the pores in the soles are very much larger than in any other part of the body, hence are more easily clogged with accumulations, which prevent the blood from reaching the surface to warm it hence they should be washed every night in warm water, then dip them for an instant in cold water, covering the toes, to promote reaction; if this is not sufficient, the same should be done every morning also.

Some persons claim to have kept the feet perfectly warm by wearing no stockings, but leather shoes, buttoned well up to the ankle, stating, how-

ever, that it is essential to keep the feet perfectly clean.

Some feet are more comfortable in cotton than woollen, some with thin than thick, some with two thin pair, than one of stouter material; each should be a rule for himself, observing closely.

In stubborn cases of cold feet, bathe them in hot water for ten minutes, then dip them in cold water for a few seconds, and repeat this cold and hot operation two or three times, not only at night but also in the morning; in all cases follow up the remedies until the object is accomplished.

In damp weather, and for the weakly in all weathers, felt soles should be worn inside the shoe, removed and thoroughly dried every night; cork absorbs moisture, and is not readily dried.

India rubber shoes are the only perfect protectors of the feet in wet weather, and they keep out the cold and retain the inner heat in the winter time; remove them after getting into the house, if you expect to remain an hour or more.

In riding in vehicles, a newspaper, well wrapped around the stocking-feet, will keep them warmer than a tight boot, as the latter prevents the circulation of the blood; paper under the feet in public assemblies out of doors, prevents the dampness of

the earth from striking in, and it keeps the feet warmer in rail cars than if they are allowed to rest on the floor; in fact, a shawl or wrap on the floor, for the feet to rest on, is often of more importance than on the lap or shoulders. The floor is colder than the foot-rests in car seats. Many, especially ladies, do a great deal towards undermining their health by wearing tightly-fitting shoes; while in the house they should wear loosely-fitting slippers all the time; if the feet are inclined to be cold, they should be made of woollen cloth or felt—soles and all. Mothers should always notice if the feet are warm on putting the children to bed, and also the last thing on retiring at night, as croup is always preceded by cold feet. In short, perfectly clean feet, with loose covering, are the main things for keeping them comfortably warm; and always, the instant they are cold enough to attract the attention unpleasantly, even slightly, let nothing prevent warming them at the fire or by a brisk walk, or rubbing them with the hands. If very cold, do not put them within five feet of the fire; better put them in cool water for a while. A young lady, returning from skating, noticed one foot to be painfully cold. She was advised to put it in hot water, resulting in amputation. It should

have been wrapped in snow, or put in cool water first.

REGULATING THE BOWELS.

The alimentary canal, constituting the "bowels," is about thirty feet long, and is constantly moving, like worms in a carrion, hence called, the "vermicular motion," or "peristaltic action," which action is healthy when it causes an evacuation every day, soon after breakfast; without this, it is impossible to be well, keep well, or get well. If this action is not vigorous enough, there is an interval of two or three days; this is "costiveness;" if five or six or nine days intervene, it is "constipation;" if the action is too vigorous it is called looseness, or diarrhœa, which, exaggerated, is cholera; hence the cure of costiveness and diarrhœa is the regulation of the bowels to one action a day; the natural, safe, and efficient means are exercise, food, and drink.

COSTIVENESS.

Every movement of every muscle of the body tends to throw from it, on the outside, all useless waste, hurtful matter, so as to keep the human mechanism unclogged; if a needle is stuck clear into the flesh anywhere, the next day the muscles

begin to get rid of it; and in one, two or five years or more, it presents itself at the surface of some distant part of the body. The object of this exquisitely skilful arrangement is to carry away the refuse of the food daily eaten. The best form of exercise is steady, moderate work, especially out-doors, as in plowing, hoeing, spading, and the like. Next best is moderate, continuous walking two or three times a day, causing a slight perspiration and fatigue, especially with an agreeable or profitable end in view.

Next to this, is riding on a trotting horse before dinner, for a time, which will be efficient next day.

Or, for five or ten minutes, night and morning after meals, thumping, for a space of six inches around the navel, with the ends of the fingers and thumbs, to stimulate the bowels to motion when torpid or asleep.

Or, with the ball of the hand, beginning at the right hip, under the ribs, rub downwards, moving towards the other side of the navel, for the liver is above that locality, and, in a sense, the bile which it contains is pressed out as water from a sponge, and is carried into the bowels, the want of its presence there being the cause of the constipation.

Sometimes an injection or "enema" of half a pint of tepid water answers the purpose; this is the favorite French method, but the system soon begins to look for it, and a troublesome, life-long habit is induced, which must be kept up.

Some swallow a tablespoonful or two of white mustard seed whole, in water, an hour before meals; the seed acts mechanically, irritating the parts, causing them to throw out water, as the eye when touched; this dissolves the hardened contents, carrying them downwards, all causing accumulation and distension, like the enema.

Others drink a glass or two of fresh, cool water, on rising, and, if necessary, midway between meals, and on retiring.

Others again use freely stewed prunes, dates, tomatoes, dried figs, and other things having small seeds, acting as the whole mustard above.

Coarse foods are efficient, having a great deal of waste, to distend the lower bowel; as boiled turnips, and bread made of the meal of the whole of the grain of wheat, barley, oats, or Indian corn, with the bran, the sharp edges of which are supposed to act as the mustard seed; hence, some stir a tablespoonful of bran in two glasses of water, of mornings, to move the bowels.

Few will fail, if half a pound or more of grapes, oranges, fresh fruits, or berries are eaten an hour before a meal of oatmeal porridge, or crushed wheat, or wheaten grits, or hominy with a little butter, or salt, or sugar,—no milk, or cream, or other fluid.

The exercise, the food, the water, the fruits, are natural agencies, safe and efficient, if well carried out. If drugs are taken even for a few days, they leave a still greater tendency to constipation, and soon medicine is needed every day; a miserable and ruinous habit.

LOOSE BOWELS.

As every step causes their motion, don't move, but lie down; nature prompts that by sending a feeling of weakness; next, bind woollen flannel, a foot broad, around the body, double in front, tight; this gives warmth and prevents the bowels from hastily moving, as a man in a packed crowd; the relief is instantaneous and delicious, especially in cholera.

For food, eat nothing but rice parched brown, like coffee, then boiled, with a little butter, or salt, or sugar over it, thrice a day; nothing between; drink nothing, but eat all the ice you can, swallow-

ing it in as large lumps as possible, to quench thirst and cool the internal fever.

In all cases when the objeet is accomplished, leave off the remedy gradually, so as to have the same things to fall back upon in subsequent attacks

TAKING COLD.

"He took a little cold," has been heard multitudes of times in answer to the question, "What was the matter with him," in reference to some one who had just died. In all such cases the person would not have died then, might have lived a good while longer, had the cold not have been taken, Just as the floor of a room in the house may be covered with powder, and no harm ever result until a spark is applied.

Almost every reader can remember having often, during his previous life, taken "a little cold," resulting in great discomfort, lasting for many days sometimes, if not ending in serious illness. It is not that "a little cold" is of itself a serious thing; for, if the person had been in vigorous health, it would have passed off in a short time, without leaving any special ill result; but very few persons are in vigorous health, hence almost every one is personally and vitally concerned in understanding

all about the nature, cause, and cure of "a little cold."

The blood vessels are large near the heart, but spread out, as the trunk of a tree divides into branches, getting smaller and smaller, until when they reach the outer surface of the body, the skin, they are too small to be seen by the naked eye, yet they are all hollow, and the warm blood from the heart is constantly coming into them, imparting that warmth to the skin, and then returning, thus going and returning all life long.

But if the skin gets cold these little blood vessels wont work, they contract; the warm blood does not reach the skin; it was cold on the outside before, but now it gets cold, as it were, deeper, on the inside, where there are more nerves to feel it, and the result is we feel cold, and a chill or shiver runs all over us; that instant a cold has been taken. The blood does not get to the surface of the body by a greater and greater distance; it tends to accumulate about the heart and lungs, filling them so full that air enough cannot get in, and we have the sensation of being "stuffed up," of being "short of breath," of being "oppressed."

If the cold is still longer prolonged, the brain itself gets oppressed by the increased amount of

blood there; this oppression causes sleepiness, which becomes more and more irresistible and overpowering; such a sense of its deliciousness comes over the person that he would "give the world," if he had it, for a little sleep, just to be permitted to lie down and go to sleep for a minute or two, until, at last, he can resist no longer. Then he falls asleep, and wakes no more, because he has

FROZEN TO DEATH,

the most delicious death that can ever come to man.

This is when the cold is continuously applied to the skin, and the cold air is carried into the lungs at ev breath. But, in ordinary taking cold, w heart gets to a certain point of fulness, it s an instinctive effort to relieve itself from impending suffocation; just as a man would strive in desperation to remove a pillow from his face, when forcibly pressed upon it by others attempting to smother him. In this condition of things, the heart begins to work faster, in order to pump the excess of blood out of it; not only faster but more vigorously, feel the pulse, and instead of beating about seventy times in a minute as in health, it works "like lightning," ninety, or a

hundred times, or more, in a minute; this is "reaction;" we call it fever.

Every one can remember how chilly he was when he first took the cold, how he failed to get warm before the hottest fire; the chills would run over him in front or rear, but, when the reaction comes, the fever sets in, and the man is "sick."

Just as every man is said to have a "weak spot in his head," so nearly every man has a weak point somewhere in his body; by weakness, meaning a want of power of resistance to keep off the enemy, disease.

As before described, in a cold, the blood, is driven to the interior of the body, flooding it, as it were. The heart is always strong and able to protect itself, it throws the blood back; not so with the lungs, and stomach, and bowels, and kidneys, and other parts, and, whichever of them is weaker than is natural, has to "bear the brunt" of the battle.

If the bowels are weak, the person has "looseness," called diarrhœa, and the cold "works itself off" in that way, they are relieved, and the man gets well; some persons are impatient and take a dose of castor oil, and set the bowels to "working off" the cold in a similar manner. Another man has weak eyes, the cold settles there, and the "eyes

water." Others again have weak lungs and the result is "a bad cold" or pneumonia, that is inflammation of the lungs, etc.; thus it is that a cold affects different persons differently.

If a person neglects a cold forty-eight hours, nothing will "cure it;" it will run its course, in spite of everything, like measles, in about two weeks; but if "little colds" are added from time to time, the cure is protracted into months, ending in a hacking cough, and then follows consumption.

If a cold is properly attacked the instant chilliness comes on, it can be certainly cured, and generally so if, within twenty-four hours, the person will go to bed, wrap up warm, and stay there a day or two, eating nothing but apples, oranges, grapes, berries, etc., in their natural state, and drinking nothing but hot beef teas, thus keeping the body in a slightly perspiring condition; especially keep the feet warm; if very chilly at first, put bottles of hot water in the arm pits. The sooner a person attends to these thing after taking the cold, after the first sense of chilliness, the more prompt and infallible will be the cure. Never go outside the door when you have a cold, and live on fruits and coarse bread for two or three days. Every time a dyspeptic takes a cold, he is thrown back

in the treatment, and sometimes it requires two or three weeks or more to regain what was lost, not taking into account the bodily sufferings endured in the meantime through debilitating diarrhœas, distressing pains in the stomach, head, or spine, according to circumstances: hence special attention is invited to the following article as additional warning on the subject of taking cold:

CHECKING PERSPIRATION.

Edward Everett, the finished scholar, the accomplished diplomatist, the orator, the statesman, the patriot, became overheated in testifying in a court-room, on a Monday morning, went to Fanueil Hall, which was cold, sat in the draft of air until his turn came to speak; "but my hands and feet were ice, my lungs on fire. In this condition I had to go and spend three hours in the court-room." He died in less than a week from this checking of the perspiration. It was enough to kill any man.

Professor Mitchel, the gallant soldier, and the most eloquent astronomical lecturer who has ever lived, while in a state of perspiration in yellow fever, the certain sign of recovery, left his bed, went into another room, became chilled in a moment and died the same night.

If while perspiring, or while something warmer than usual, from exercise or a heated room, there is a sudden exposure in stillness to a still, cold air, or to a raw, damp atmosphere, or to a draft, whether at an open window or door, or street-corner, an inevitable result is a violent and instantaneous closing of the pores of the skin, by which waste and impure matters, which were making their way out of the system, are compelled to seek an exit through some other channel, and break through some weaker part, not the natural one, and harm to that part is the result. The idea is presented by saying that the cold has settled in that part. To illustrate:

A lady was about getting into a small boat to cross the Delaware; but wishing to get an orange at a fruit-stand, she ran up the bank of the river, and on her return to the boat found herself much heated, for it was summer, but there was a little wind on the water, and the clothing soon felt cold to her; the next morning she had a severe cold, which settled on her lungs, and within the year she died of consumption.

A stout, strong man was working in a garden in May; feeling a little tired about noon he sat down in the shade of the house and fell asleep; he

woke up chilly; inflammation of the lungs followed, ending, after two years of great suffering, in consumption. On opening his chest there was such an extensive decay, that the yellow matter was scooped out by the cupful.

A Boston ship-owner, while on the deck of one of his vessels, thought he would "lend a hand" in some emergency; and pulling off his coat, worked with a will, until he perspired freely, when he sat down to rest awhile, enjoying the delicious breeze from the sea. On attempting to rise he found himself unable, and was so stiff in his joints that he had to be carried home and put to bed, which he did not leave until the end of two years when he was barely able to hobble down to the wharf on crutches.

A lady, after being unusually busy all day, found herself heated and tired toward sundown. She concluded she would rest herself by taking a drive to town in an open vehicle. The ride made her uncomfortably cool, but she warmed herself up by an hour's shopping, when she turned homeward; it being late in the evening, she found herself more decidedly chilly than before. At midnight she had pneumonia (inflammation of the lungs), and in

three months had the ordinary symptoms of confirmed consumption.

A lady of great energy of character lost her cook and had to take her place for four days; the kitchen was warm, and there was a draft of air through it. When the work was done, warm and weary, she went to her chamber, and laid down on the bed to rest herself. This operation was repeated several times a day. On the fifth day she had an attack of lung fever; at the end of six months she was barely able to leave her chamber, only to find herself suffering with all the more prominent symptoms of confirmed consumption; such as quick pulse, night and morning cough, night-sweats, debility, short breath, and falling away.

A young lady rose from her bed on a November night, and leaned her arm on the cold window-sill to listen to a serenade. Next morning she had *pneumonia*, and suffered the horrors of asthma for the remainder of a long life.

Multitudes of women lose health and life every year, in one or two ways; by busying themselves in a warm kitchen until weary, and then throwing themselves on a bed or sofa, without covering, and perhaps in a room without fire; or by removing the outer clothing, and perhaps changing the dress

for a more common one, as soon as they enter the house after a walk or a shopping. The rule should be invariable to go at once to a warm room and keep on all the clothing at least five or ten minutes until the forehead is perfectly dry. In all weathers if you have to walk and ride on any occasion, do the riding first, for then the walk will warm you, but if you get heated by walking and then sit still in a vehicle, especially if there is an open window, a chill is inevitable.

A young man who was recovering from a tedious and dangerous disease, in walking from a physician's office to take an omnibus, became overheated. A young lady sat at the front of the vehicle before the open window. He felt the chill air, but did not like to ask to have the window closed. Before he reached his destination, he was "chilled through and through," with the result of an attack of inflammation of the lungs, from the effects of which he died.

"Checking Perspiration" means cooling-off too soon after exercise or work which has made the body warmer than natural; this is done most easily, if a person thus a little warm, sits in a draft at an open window or door, or stands still for even

a minute or two at the corner of the street, where there is always more or less air stirring.

When it is taken into account how many persons have attributed their sickness to having "taken a little cold," and how many of the friends of our youth have died from this cause, we may well be always on our guard against "checking perspiration," and should diligently, patiently, and conscientiously teach the lesson to our children, and even read these facts to them once a year.

BATHS AND BATHING.*

So many persons are in the habit of bathing more or less, that in most cases when a physician has given his prescription, some inquiry is made as to whether the bathing shall be continued. In dyspeptics, the blood is said to be poor and cold, as well as impure, making it very easy to take a cold, or to renew it, always aggravating the disease; increasing the dyspepsia, if the force of the cold falls on the stomach, while if it attacks the brain or

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nervous system, distressing pains, if not more serious results, are sure to follow, and to retard the cure; hence it is thought desirable to make the following suggestions on the general subject, especially as it is a continuation of the preceding pages on taking colds and checking perspiration:

Long before Priessnitz was born, cold water and warm water were known to be valuable agencies in the promotion of health and in the cure of disease, and so have the medical profession regarded them for centuries: but the use of them has not been put forward prominently, because of their dangerous character, on account of the ignorance, carelessness, and want of experience in their application on the part of the masses. This has been so apparent of late years that the most able hydropathists, among whom may be named Trall and Jackson, have repeatedly taken occasion in their respective periodicals to reprehend their indiscriminate application. It is for this that so many "cold-water cures" in different parts of the country have failed to be self-supporting with all their advantages of pure water, mountain air, and magnificent scenery. Like any other powerful remedial agent for the cure of disease, even cold water must be used with judgment, as a result of close

observation, long practice, and intelligent application.

There can be no uniform rule generally applicable for cold bathing, because almost every individual must be a rule for himself in view of his age, his temperament, his constitution, his habits of life, the state of his health, and the character of any ailment which he may have. I have seen cold water applied to an apparently dying missionary on the banks of the distant Mississippi over forty years ago. Intelligence was gone, the teeth set, the eyes glazed, the pulse almost imperceptible; in fifteen minutes he sat up and conversed intelligently with the friends around him.

On the other hand, medical authorities give cases where persons not much sick have died in an hour from the application of cold water. Last summer a New York banker went home from Wall Street, after a day of unusual excitement, weary, depressed, tired, and over-heated. He thought a cool bath would refresh him; he died that night. The papers stated that the immediate cause of the fatal attack of illness of Vice-President Wilson, whom a nation truly mourns, was a bath. If a man of his age, intelligence, and judgment, erred fatally in the matter of taking a bath, it will re-

quire a long time for the masses to be educated up to the point of safe bathing, either cold or hot.

A gentleman at the Astor House took a cold, was advised to take a Turkish bath, did so, returned to his lodgings, was taken ill the same night; at the end of four weeks and at an expense of several hundred dollars, it was thought he might be taken to a carriage at the door on a litter in order to go home. He had gone out of his bath facing a cold, raw north-east wind, became thoroughly chilled; hence the result. One would suppose that his own intelligence, and more notably so, that of the bath-keeper's, ought to have told him better. The intelligent reader may recall instances coming under his own observation of ill-results from both cold and warm bathing.

It is for reasons like these that educated medical men all over the world are not forward in recommending baths and bathing as a remedy for sickness, except in the comparatively few cases where a wise application can be certainly calculated upon.

The subject cannot be discussed in a single short article, hence bare facts only are submitted to the consideration of the intelligent reader.

A warm bath once a week and a hand-air bath night and morning are of universal application, and would, if generally used, do less injury and more promote health than daily cold or warm water bathing, as now generally understood and practised.

The warm bath above, in fire-time of year, means a good washing of the whole body once a week with soap and warm water, with the aid of the naked hand alone, or sponge, in a room measuring seventy degrees of Fahrenheit, and the water quite as warm, or warmer.

The hand-air bath means rubbing the hands vigorously all over the surface of the body as far as can be reached; all garments but stockings laid aside; mouth shut, and with such activity as will keep off the slightest feeling of chilliness; keep it up five minutes and dress quickly. The effect of this is to expose the whole surface to the air, to ventilate it, to remove from the skin any scales or other solid particles which might obstruct its pores, leaving it in that soft and slightly oily condition which gives the mobility characteristic of the healthy skin of an infant. If all the natural oil of the skin is washed from the body night and morn-

ing, it is to that extent left harsh and dry, which is precisely the opposite of the healthy skin.

Anatomists tell us that the skin of the human body is really a series of scales, as in the fish. If the "slime" on the fish is removed the scales will not slide over each other as they do, and the fish would die, because that is a secretion designed not only to repel water, but to facilitate the motion of one scale over another. It does not seem an unreasonable conclusion that it would be as great a violence to nature to remove her lubricating material from the skin of man as from the scales of the fish. The fact is, patiently rubbing oil into the dry skin will cure fever, it will cure a cold on the chest of an infant, and other maladies besides. Oil is as valuable a remedy to-day as in Old Testament times; it was used externally; the modern teachings of a certain class of minds are that it should be washed off as soon as it presents itself from nature's laboratory; this cannot be wise, safe, or healthful, although to many it may seem "very reasonable."

PERILS OF WATER CURE.

Even the application of cool or warm water, as a remedial means, is not without its good and ill effects, undoubtedly beneficial when carefully and judiciously applied, but, far otherwise if attended to by the ignorant, or careless, or negligently by those who do not understand it well. Miss B. attended a place of amusement and returned home about eleven o'clock at night, feeling somewhat chilly; the sleep was not refreshing, and in the morning there was not observed the joyousness and life which was peculiar to her. She had no appetite for breakfast and during the whole day there was a degree of listlesness and quiet, very unusual to her, and in such striking contrast with her every day life, that a physician was called, who, within a day or two, seeing the symptoms were grave, advised a consultation, and another gentleman was invited to examine the case; the conclusion was that nothing was to be expected from medicine, but if perspiration could be excited, it would relieve that oppression of the internal organs which seemed tending to typhoid fever. The gentleman who was called in consultation was considered an experi-

enced, capable physician, and having had considerable practice in what is called the "wet sheet," or pack. He had acquired a skill and judgment in its application, which usually enabled him to accomplish uniformly valued results. The patient was wrapped in a wet sheet, and in due time a healthful warmth and perspiration were observable with an encouraging relief of all the interior organs; observing which, he left the remainder of the management to inexperienced hands, with the result that the favorable symptoms gradually disappeared, to be replaced by those which were more grave, and the interesting patient died in a day or two, in her nineteenth year, notwithstanding all that wealth and social position, and devoted friends and loving parents could do; the cherished and admired of all who knew her, to be remembered for long years to come, for her cheery face, her laughing eyes, her joyous mood, and her affectionate ways, and most by him whose bride she would soon have been.

It is very true that man is born to die, and that the day comes to all which must be the last on earth; and the history of those who have ever died of disease or will ever die of sickness will make the fact notable that the heedless hurry in doing or omitting some little thing; failing to take advan-

tage of some little circumstance, seemingly so to us, but in this case, humanly speaking, and in the light of our short forecast, the strong presumption is that had the physician remained at his post and closely observed the indications and needs of the case, the interesting patient would have been

ALIVE AND WELL

to-day, for evidently there was recuperative power left, there was life enough for living; the violence of the disease had passed, and good nursing only was required, because there was such a ready answer to the means of perspiration, and as prompt a response to the healthful effects, which only needed to have been kept up; a striking illustration of the sentiment first advanced, that the water cure requires too much intelligence, judgment, observation, skill, experience, tact, and wise watchfulness, to be placed in common hands, or to be employed by the masses, and hence the numerous failures of success in the multitude of

WATER CURES

which have been set up in all parts of our country, not failures on account of their inherent value, but

on account of their reckless and ignorant administration, hence

BATHS AND BATHINGS

in water are not advised as remedial means in dyspepsia, although they appear so "reasonable, and can do no harm if they do no good," as is claimed for them. One good washing and scrubbing with soap and brush and warm water in a room of seventy or eighty degrees, once a week, being all that the dyspeptic usually requires in connection with the

HAND AIR BATHS

every night and morning, performed with a will. To take another practical look at the case, first narrated the dyspeptic may learn a valuable lesson. It can not be supposed that a slight chilliness could have inaugurated such a series of symptoms, finally ending fatally under any usual circumstances, or in any person of good health; there must have been in this case some hidden causes in operation whose tendency was to weaken the general system, working and working for weeks and months, using up the stamina of life, and leaving less power to resist the onset of any disease producing effects.

INDIGESTION.

Indigestion is a Latin word, meaning the same thing, in a general way, as the Greek term from which the word dyspepsia is taken. The Greeks had an idea that the digestion was performed with difficulty, whereas the Romans thought it was not performed at all; or, at most, imperfectly, which is more accurate and more philosophical; for really, the food is not healthfully digested, does not make healthy blood, does not impart natural nutriment to it; for it is through the blood that nourishing and renovating particles are carried to every pin-point of the body; hence, no portion of it is properly nourished, and all dyspeptics lack strength and vigor and elasticity. But when the blood is not made of a healthy material it steadily becomes impure and thick and black; is significantly called by the people "bad blood;" it does not flow freely, becomes congested, accumulates, "dams up" in the veins, distends them; and as this unnatural quality of blood is carried to all parts of the body, it produces disquietude, discomfort, and annoyance of some kind wherever it goes, and that is the reason why a dyspeptic will tell you that he "feels bad all

over." But the nerves are fed by this same blood, and, being impure and imperfect, does not satisfy them, it does not feed them, and each one, like a hungry man, complains, is disgusted, and restless and weak; hence dyspeptics are said to be "nervous;" they are fidgety always, and always complaining.

EATING TOO MUCH.

Dyspeptics generally eat a great deal, yet are always hungry, for the instincts are misled thus: the blood being imperfect, the system is imperfectly nourished, hence imperfectly strengthened, consequently weak; and nature, knowing as it were that food strengthens, calls for more food, when it is not more food that is needed, but more nourishment. The dyspeptic eats enough, in fact too much, but the nutriment is not extracted from it, the stomach not having the power to act upon the food properly; it then very naturally follows, that when the stomach does not have strength enough to digest a large amount of food, it might have the power to digest a smaller quantity, as a faithful invalid servant may not have the power to do a large amount of work, but could perform a smaller quantity. And yet, when persons are dyspeptic, instead of

eating less, the very common practice is to take bitters and tonics, in the shape of wines and liquors, to whet up the appetite, to promote digestion; but liquor is not gastric juice, consequently cannot facilitate the digestion, and even if it increased the appetite, it is directly the reverse of what ought to be done: for the appetite is already too great, is unnaturally vigorous. So do men, through ignorance, medicate themselves, aggravate their maladies, and are hurried into untimely graves. Medicine never did and never can cure dyspepsia; the true remedy is to eat less and less at each meal, until no discomfort is felt afterwards; continue this for a short time, and then gradually increase the amount eaten, as a convalescent gradually increases exercise or labor, in proportion to the gradually increasing strength; but as often as discomfort follows after eating—that is, any feeling or sensation which attracts the attention unpleasantly—diminish the food to the requisite amount, as before stated. This is the true key to the alleviation and cure of our national disease, dyspepsia.

EATING TOO OFTEN.

While eating too much causes one case of dyspepsia, eating too often causes a hundred, if not ten

thousand; some of the Indian trappers in the Rocky Mountains rise early, hunt all day for their game, come to camp at night, eat six or seven pounds of meat, lie down to sleep, and live a hundred years. An old beau in the Federal city, in Henry Clay's time, attended every party to which he was invited; but if, at any time, he was unexpectedly called after his regular meal, he would go, help himself bountifully, but would not eat anything next day, so as to average only one meal in twenty-four hours; he lived beyond fourscore, a lively, joyous "old boy." Greenland is not depopulated, yet the Esquimaux eat once a day, or week, or more, five, ten, and even twenty pounds of provisions at a single meal; and sometimes when they have strength to eat no longer, some one puts the food in their mouths for them. One man is reported to have gone to sleep with part of a sausage hanging out of his mouth.

This is a matter of habit and custom. Steady workers should eat three times a day. Some have lived to old age, eating but twice a day, others only once; in this latter case eating becomes a disgusting gluttony.

Until fifty it is better to eat thrice a day, nothing whatever between. If workers eat but twice a

day, the system is so ravenous for food that it is very apt to be over-pressed and to fall into disease. After fifty, sedentary persons may do very well with two meals a day. It is very certain that many persons have been cured of the ordinary forms of dyspepsia by taking but two meals and rigidly avoiding anything between. The advantage of this is that the stomach has abundant time to rest and to accumulate a large amount of gastric juice, and if little or nothing is drank to dilute it and thus destroy its strength, the food is dissolved rapidly, provided the person eats very slowly and chews everything well; with these precautions the stomach is not over-filled and the appetite is gratified without having eaten too much. Some who have become very much weakened by having had indigestion for a long time, or from other causes, cannot wait four or five or six hours, for the stomach gets so weak in that time that it loses the power to digest anything. In these cases such food should be taken as can be digested in a short time. If those articles are eaten which are known to be digested fully in two hours then another meal may be taken in three hours and so on. This should be continued until the patient becomes strong enough to walk a mile or two, when it may

be advantageous to eat less often until two or three meals in twenty-four hours will be advisable. But in almost all cases where the person eats but two or three times a day, very great advantages will be derived from eating grapes, half a pound and up to a pound, before each meal, in such a way that the eating is finished half an hour before the meal, and, if it is at all practicable, they should be eaten, a grape at a time, while a person is walking in the open air in a good frame of mind, and if it amounts to the agreeable and even pleasurable, it will be very much better and will certainly speed the restoration to the natural condition of things and to good health. And the reader must see, that if no medicine is given, every little thing should be taken advantage of, as

MANY RILLS MAKE A RIVER.

In all cases of eating grapes the skin should be ejected. If the bowels are loose the skin should be chewed well so as to get out of it the fluid substance which it contains, which is decidedly constringing as it is known to have astringent powers. If the person is confined, does not have one action of the bowels, full and free, in every twenty-four hours, the seeds should be

swallowed, as they have the mechanical effect to stimulate the mucous surfaces by their friction to pour out an extra amount of fluid, as the eye does when touched; this fluid dissolves the hardened contents, acting as an injection, and is thus a more natural means.

The pulp of the grapes is nutritious and has a sub-acid which is believed by European physicians to have a stimulating action on the liver; hence, in some cases, four or five or more pounds of grapes are required to be eaten every day in the open air, and very little other food; oatmeal porridge, wheaten grits, stirabout, or other forms of coarse cereal food being taken half an hour after the grapes.

If a person is really anxious to get rid of his dyspepsia in the shortest time possible, and wishes to encourage himself in the belief of speedy restoration, it would be well to adopt the full plan on the instant, beginning with the very next meal—thus: take half a pound of grapes in the open air, to be finished half an hour before meal-time, eat nothing at the meal, but as much of the porridge, grits, or stirabout (mush) as may be pleasurably taken, but to be diminished if discomfort is experienced afterwards. A little fresh lean meat may be added. Many persons are very anxious to take milk with

the articles above named under the impression that it is "very healthy;" it certainly is for infants and pigs, and puppies, and lambs, and rabbits, and mice, and such like; and for them it is intended, but not for long, in any case, because nature dries up the fountain. Hard-working persons, farmers and the like, may take sweet milk at their meals with impunity, for years together, but they are healthy in spite of it; not on account of it. Persons of an

INQUIRING TURN OF MIND,

whose lives are sedentary, may make the experiment for themselves and drink largely of luscious, fresh sweet milk, at each of the three daily meals for a week, and note for themselves. Not many will care to repeat the experiment.

The articles named may be made very palatable by sprinkling on them a little salt, at one time, sugar at another, or use butter or syrups alternately. If the dyspeytic is really hungry as he ought to be before he eats anything, he will be glad to get any of the articles named, and it is not at all likely that they will disagree with the stomach of any hungry person. And although the patient may not "feel like" eating porridge or cracked wheat,

and may have no inclination to do so, he is advised to wait until he does feel as if they would

TASTE GOOD.

The dyspeptic should have force of character, determination, and self-denial; the proper exercise of these will add to the certainty and rapidity of his recovery. If the grapes or other fruits are thus taken before each of the three daily meals, it will be eating but thrice a day, which is not too often, although many will do better to eat but twice.

THE PRISON CURE.

In any ordinary case, dyspepsia can be uniformly cured by a proper attention to two of the points above named—regulating the eating, steady employment in the open air for six or eight hours or more between sunrise and sunset. It is certainly corroborative of the truth of this statement that persons sent to penal institutions, which are systematically and properly conducted, always get well of dyspepsia, if they have it, because they eat regularly of plain nourishing food at regular times, and at no others, and are kept steadily at work, in moderate labor, and that, too, under all the depressing circumstances connected with their condition.

they eat plentifully but not often; not "tit-bits," not the wing of a "sucking dove," but plain, nutritious food; no bitters, no tonics, no liquor. This is most suggestive.

CONSUMPTION.

Standard medical writers are agreed that the largest number of dyspeptics and consumptives, especially among women, are made in the teens of girlhood. Dyspepsia naturally leads to consumption, because being imperfectly nourished, the unfortunate grow thin, their blood is poor, their circulation languid; hence they are chilly, take cold easily; in fact, "the least thing in the world" gives them a cold, which is more and more easily renewed, until before one cold gets well they take another, and the cold is continued; and that is the seed of consumption, to sprout up and spread and grow, like some baneful weed, to eat out all life's substance, and the hèctic and the grave close the sad history. Thus, there is scarcely a family of any size which cannot point to some dyspeptic or consumptive daughter brought about thus: Girls are around the house all the time; as they are growing, the appetite is vigorous, they are always ready to eat; and as they are passing about through

kitchen, pantry, or hall, the eye is pretty sure to fall on something "good," which they are very sure to take—an apple, an orange, cake, cookie, or pie, thus deranging the process of digestion by keeping the stomach always at work, giving it no rest, causing it finally to give out from over-work. But while this is going on, the parents wake up to the fact that their daughter has no appetite for breakfast. She may sit down to the table, but it is only to nibble and to sip. The mother puts away her breakfast for her to be eaten later; or, if she is going to school, an appetizing bit of cake or pie is added, clogging the stomach and making it impossible to be healthily hungry at the regular dinner-time. Then dinner is set aside, and, being eaten too late in the day, the sleep is dreamy, and the morning comes with an unrested body and a weary brain, incapable of applying itself to the studies for the day. There is no alacrity in the comprehension, the very effort to study is painful, and she finds it a fruitless task. Then she becomes uneasy and anxious about the marks and "failures" in the lessons; this takes away all appetite for food; she leaves home for school weak, worried, and depressed. And this is

to many, too many, of our daughters, who are thus trained to a tedious invalidism, or to an over-early grave, instead of a long and useful and enjoyable career.

CHILDREN'S EATING.

No child, no one, man or woman, is well who comes to the breakfast table without an appetite. If this happens only occasionally, it is ground for disquietude, and if habitual for young girls, it is cause for alarm, because it is very sure to be followed with cold feet, headache, chilliness, the forerunners of troublesome ailments always, and sometimes of incurable disease. There can be but little doubt that the dyspeptics of the nation would be diminished one-half in a few years if children were not sent to school until seven years of age, and were not allowed to eat anything between the three regular meals of the day, except an apple or an orange. The subject merits the thoughtful consideration of every conscienticus parent. Mothers, especially, are under great responsibilities in this connection.

CONSEQUENCES OF DYSPEPSIA.

When the stomach becomes dyspeptic, disease is transmuted to other parts of the system in two ways. First, through the blood; second by sympathy, nervous connection; or no good blood is made by the dyspeptic; because the food being imperfectly digested, cannot afford that healthful nutriment to the nerves which feed on it, and which they require; and, as a result, they complain, become debilitated from want of nourishment, then follows irritability and a variety of diseased manifestations or symptoms, dependent upon the part affected, and the age, sex, constitution, and temperament of the patient.

The blood being imperfect, becomes poor, and does not contain the nutriment necessary to sustain the structure of the muscles and bones and sinews of the body; hence, dyspeptics are always deficient in strength. This deficiency is not confined to voluntary motion, to ability to labor, it extends to every function of the system, to all its manufactories; they are not carried on with healthful vigor; their products are neither perfect nor pure; and do not accomplish the designs intended; hence,

the whole machinery of the body is out of order, and to such an extent, sometimes, that there is neither the disposition nor strength to work; effort is painful, it is a labor to think; study is impossible; and, under a sense of prostration of the whole body, the patient sometimes feels as if he were

GOING TO DIE.

The blood is not only imperfect and poor, it is impure; and just in proportion as that is the case, it is thick; it does not flow through the blood vessels as freely as it ought to do; the propulsive power of the heart may send it along the larger arteries; but it does not reach their extremities in necessary amounts, hence the skin is dry, and rough, and cold; and the dyspeptic complains of being chilly if exposed to the slightest wind, and cannot go out of doors without

MUFFLING UP,

when the healthy feel that the weather is balmy and delightful. Under these conditions, the dyspeptic finds that

"THE LEAST THING IN THE WORLD,"

gives him a cold; the causes being so slight some-

times, that it is almost impossible for him to find out how he did take cold; but it has been taken, and the result is, that the stomach being the weaker part, feels the effect of it most. Sometimes the whole force of the cold falls on that organ; increasing its debility and making it more and more unable to perform its functions; with the result of aggravating every symptom. In the course of time the patient learns that the slightest out door exposure gives him a cold and gradually growing more and more nervous in the fear of this, all his precautions are in that direction; and, being under the impression that going out of doors gives him a cold, he goes out less and less, is more easily deterred by wind and weather: and, allowing so many things to keep him from

TAKING A WALK,

he is, before he knows it, confined to his house, with the result, that his circulation becomes more feeble, his digestion more imperfect, his blood poorer and colder, requiring him to wear more clothing in the house, to keep up larger fires, and to sleep in warmer rooms; all ending in making him a confirmed invalid.

In all this, nothing has been said about pain; about actual suffering; but this comes on apace;

for if the blood does not force itself along the extremities of the arteries with all the pumping power of the heart, much less will it travel along the veins, to find its way back to the lungs for purification and a new life; hence, it stagnates in the smaller branches of the veins; becomes impacted, plugged up,

CONGESTED,

distending their sides; pushing, swelling in every direction; filling up; making some dyspeptics appear as fat as a

BUTTER BALL.

But it is mere puff and water; there is no strength, no endurance, no stamina. In others however, there is a very different result. This distension of the blood vessels causes them to press against other parts, crowds them; and when this pressure comes against a nerve, it cries out, and

THAT IS PAIN; THAT IS NEURALGIA.

All are familiar with how a slight touch on the nerve of a tooth will cause a person to start or shiver or squirm. These pressures of distended veins on the nerves, are most decided in those parts of the system which are weakest, or which have been injured

previously; hence it is, that persons sometimes find themselves ailing in a part which had suffered violence, five, ten, or twenty years before; and which they thought was entirely well. Sometimes this returning of an old pain, is the only "symptom" that a dyspeptic has; he has no suspicion that he has dyspepsia; as no wrong feeling had been noticed about the stomach. Any one having this experience, should at once consider himself falling into dyspepsia; should promptly adopt the means proposed for a confirmed dyspeptic, and persist in their employment until

"THE OLD PAIN"

has completely disappeared, and continue it for some time longer, in proportion to the duration of the efforts required for removal. This revival of the old pain will probably be a kind of thermometer, or friendly monitor, to the patient for the remainder of his life, and his wisdom will be to put himself on the treatment, the very first day he notices even slight

MUTTERINGS

of coming things in the part affected; and the result will be, that such a person will live longer

than he would otherwise have done; being compelled to carefulness and temperance.

In other parts of the system, this congested blood in the veins, in consequence of its impurity and increased thickness, as a result of indigestion, brings about other results, according to the organ which most feels the effects, in consequence of its having been injured in some way or some time in the past.

A BILIOUS

person is one whose "liver is out of order," more or less often; showing that by inheritance or temperament or condition or accident, it has not that healthful vigor, necessary to the proper performance of its work, which is twofold. All the blood sent to the different and distant parts of the body through the arteries for purposes of imparting nourishment and warmth and strength and life, is returned through the veins deprived of all these, and, instead, loaded with the impurities and wastes of the system; in passing through the liver, these impurities are separated by it, and the product of that separation is called

BILE.

If the liver does not perform its part, does not do its work, these impurities remain in the blood; and

if that continues, there is so much bile in the blood that it becomes the color of bile, and that discolored blood, being sent to the surface tinges it and the skin is yellow, sometimes, in excessive cases,

AS YELLOW AS A PUMPKIN,

and is called mere biliousness, or jaundice, or yellow fever, according to season and degree. In slight cases, the yellowness is only observed in the whites of the eyes. It is not meant to say that yellow fever is caused by dyspepsia, for it never proceeds to that extent; rarely, if ever, to the extent of causing jaundice, but merely to throw out the ideas and the fact that yellow fever and jaundice are the effects of

A TORPID LIVER,

when that torpidity is carried to a great extent; that torpidity being caused sometimes by dyspepsia, but in a comparatively slight degree. The second office of the liver is to convey the bile, after it has been separated from the blood, into the gall bladder; but sometimes it stays there, and forms into hard lumps, having been transformed by chemical process, and we call them

GALL STONES,

which, in their passage out of the gall bladder, this passage being very small, called the gall duct, causes one of the most torturing pains that human nature can endure; often exciting inflammation, which leads to a dreadful death, and which death a dyspeptic condition of the system can bring about.

At other times, the bile, by being detained in the gall bladder, becomes inspissated, hardened, but not chemically changed; the writer saw four little balls of hardened bile taken from the gall bladder of a lady; they were round, hollow, of feathery lightness, and of the size of a black cherry; these lodged against the entrance of the gall duct, and prevented the passage of the bile out of it. This lady became jaundice and died of cancer of the liver, an utterly incurable disease, and which dyspepsia is capable of causing, when its effects fall upon the liver.

But the bile may be detained in the gall bladder without turning into stone, or into feathery balls, merely remaining there in its natural state, but in larger quantities than is normal. In a healthy

condition of the system, this bile is passed into the intestine canal, drop by drop, after meals especially, at a point just below where the contents of the stomach pass into the same receptacle, and is a beautiful representation of the wise economies of nature; for this bile is the refuse of the body, and must be passed out of it, or there can be no health; on its entering the alimentary canal, it passes downwards, carrying with it the contents of the intestines, by its chemical effect upon them; these effects do not cease until these contents, which are the refuse of food, are passed out of the body, this, in a natural, healthful state, takes place once in twenty-four hours; if it does not take place, the result is

CONSTIPATION.

Thus, the refuse, worthless bile is made, in its passage out of the body, to pay tribute to its well being, in causing daily defecations, without which there can be no real good health for one week together; hence, dyspepsia may cause costiveness, which the grapes, and fruits, and oatmeal porridge, and wheaten grits, are intended to obviate; but that particular diet has other, quite as important, objects to accomplish.

Thus it is seen that dyspepsia causes biliousness, laying the patient liable to attacks of bilious diarrhœas and bilious colic, or cramp colic, so violent sometimes as to be almost unendurable, threatening speedy death. To use opiates in such attacks is bad practice; it makes the patient insensible to pain, but the causes of the pain are still in operation, and valuable time is lost. Instead of opium, or morphine, or laudanum, or paregoric, an efficient injection of tepid water should be employed, or fomentations of flannels, dipped in boiling water, wrung out, and laid over the pit of the stomach, renewed every three minutes, until entire relief is experienced; sometimes getting into a warm bath is efficient, nothing out of the water except the head; the water at first should be eighty degrees, and made warmer and warmer until relief is experienced.

The effects of these congestions, excited, or more immediately brought about by little colds, sometimes fall on other parts of the system, causing head-aches, diarrhœas, and nausea, and enormous accumulations of wind on the stomach, which may be relieved by a large draught of brandy or a tablespoonful or more of pulverized charcoal swallowed in half a glass of water, each atom of charcoal

absorbing very nearly twenty times its bulk of wind.

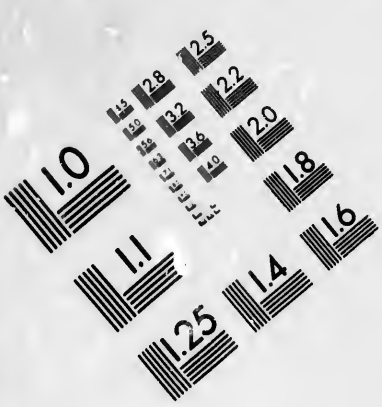
At other times, the dyspepsia is manifested by unbearable burnings in the feet, flushes in the face, or fiery sensations along the spine, or intolerable neuralgias, which, in passing, it may be well to say, are promptly relivered by hot baths or hot fomentations to the ailing spot.

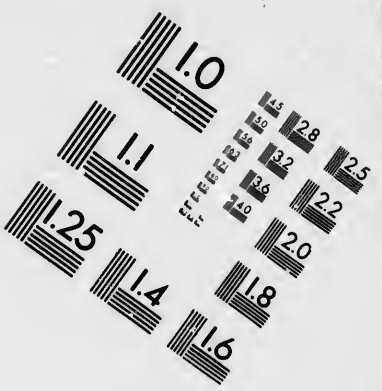
The reader must bear in mind two things: first, that what is the ordinary symptom of dyspepsia to him, whether a load at the pit of the stomach, or rawness in the throat, or fiery sensation along the breast bone, extending from the stomach to the throat, may sometimes disappear, and he may imagine that he has got rid of his old enemy, but at the same time, or soon after, he may notice a new ailment springing up in some other part of the body. This shows that the dyspepsia, instead of being cured, has only been transferred to another locality, this transfer taking place by the operation of natural causes, or by the use of means of cure which have injured that part, when the last thing taken is regarded as the cure of the dyspepsia, and the person heralds the news to all who are willing to listen to him, and recommends the remedy with the most constant pertinacity; being pretty sure to

add that it will do no harm, if it does no good; enumerating the cases in which it was successful in consequence of his advice having been followed. The willing and credulous patient takes the prescription only to find that however much good it may have done to others, it was of no possible benefit to him, and this is the origin of an innumerable multitude of much

VAUNTED CURES.

When symptoms of dyspepsia change in this way to other localities, to a pain in the face, or a rheumatism in the joints, or a lameness in the muscles there is a very natural impression that if something is done at the ailing spot, it can be cured; but the result is that while many things alleviate the suffering, nothing cures, nothing eradicates, it constantly returns, the reason is, the seat of the disease, the real cause, is in the stomach, a foot or two or more away—in short, that it is the dyspepsia misleading, making a false alarm, in all such cases. The dyspepsia must be attacked, and the remedies must be addressed to the stomach, and they must be such as will be adapted to strengthening it, and enable it better to digest the food, first by giving it rest, and then by giving it work which





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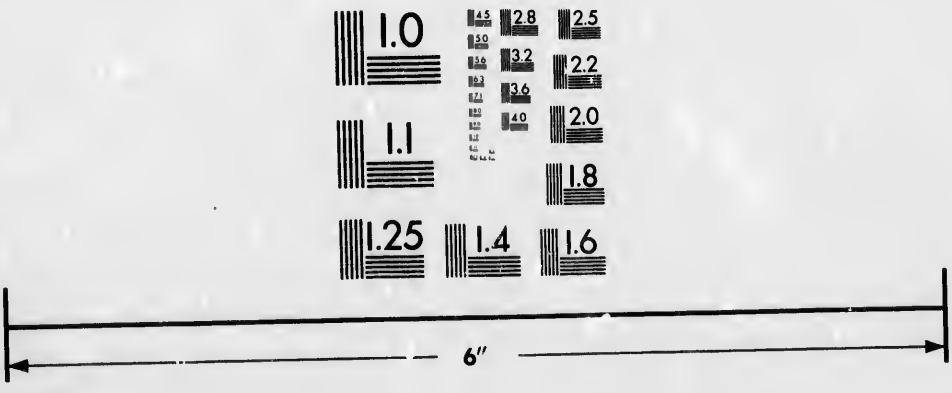

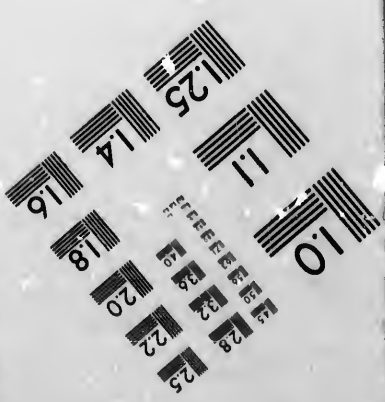

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is easy of performance, as it is believed the mode of living already marked out will accomplish in a great number of cases.

The thoughtful reader will see in these statements how the young physician or one of limited practice, is sometimes at a perfect loss, finds himself in an impenetrable fog. He applies a remedy to a certain spot, or to meet a certain symptom, it has acted

LIKE A CHARM

in a dozen or more cases, exactly like it to all appearance but in this it does not act "like a charm" or like anything else, in fact it does not act at all, does no more good than would a handful of ashes on the part. Hence the importance, in consulting a physician for any symptom of long standing, as the whole history of the patient should be minutely inquired into and plainly spread out; for lack of this, failures in curing what are called simple ailments, are constantly occurring; the remedies were not addressed to the proper point.

Then comes a practical deduction of an importance, literally incalculable, if a dyspeptic finds that his stomach ceases to incommode him, that the familiar ailment there has disappeared, and that

symptom appears in other parts of the body, he should persist in directing his remedies to the stomach, for the seat of the disease is there still, and if those efforts are such as have been already advised, he will generally be able at the end of forty-eight hours to note favorable results; if so, persist in the treatment, if not, send for a skilful physician and waste no time in self-medication—in blind, blundering, hap-hazard attempts at the employment of means which are as little understood as the object sought to be accomplished.

No man of intelligence would attempt to mend an old shoe or repair his own watch, if a competent workman was at hand to do it; but to attempt to put in order the disarranged and wonderfully complicated machinery of the system when impaired by disease, is the perfection of unwisdom, and yet, uncounted lives are sacrificed in this way, every year; a dollar saved to

PURCHASE DEATH.

THE PHILOSOPHY OF DYSPEPSIA.

When a dyspeptic purchases a book which treats of its cure, he wants to come at the point at once, see what the treatment is, study it, and then endeavour to carry it out. After that, he begins to feel a desire of knowing more about the nature of the malady, its causes, its actions, its effects on the system, and the how and the why of a great many things connected with the stomach and eating. The knowledge of these is not essential to the cure, but with an intelligent and observing mind, the understanding of these things makes it more easy to carry out the treatment than if it were in the shape of a blind, unexplained direction; hence it was thought better to propose the method of cure in all ordinary cases first, and then explain the reasons for that method in preference to all others, fortified by observed facts, which cannot be disputed.

It has not been thought profitable to enter into minute philosophical disquisitions and nice distinctions about the meaning of words and phrases, but to speak of dyspepsia in the broad sense as it manifests itself among the people in ordinary cases; for,

after all, the mode of treatment which will cure any one curable case will cure another; and it is considered very safe to say, and a very moderate claim, that the dietic plan proposed will very certainly cure four cases out of five.

If one or more vegetables or other articles of food are boiled sufficiently in some water they are resolved into a pulpy, homogeneous substance of a more or less liquid or flowing character. The Greeks observed that after food had been taken into a healthy stomach, whether of animal or man, it became more or less of a thick fluid in the course of a few hours, and pretty much of the same color and consistency whatever may have been the substance eaten; hence they considered that the process by which nature converted food into a form from which nourishment was derived was allied to that of boiling; hence they applied to it a word which meant boiling in their language, expressed in English letters by the term *pipto*.

They further observed that, if persons ate too much or ate substances which were not easily changed to the proper condition, more or less bodily discomfort was experienced; they then applied another word to express the idea of difficulty or painful conversion of food spelled *dus*, making

one word *duspipto*, and, for beauty of sound, it was formed into the familiar appelation dyspepsia.

The Romans at a later date, seemingly not willing to commit themselves to the idea that food in the stomach underwent any specified process in order to fit it for meeting the wants of the system, knowing that if that process was not carried on properly, it would not fulfil the purposes of nature, and wishing to have a word which would express that idea, without committing themselves to its manner, used the word

INDIGESTIO;

made up of *in*, meaning without, and *digestio*, meaning preparation; both together giving the full idea of without preparation, or not properly prepared; and, by adding the letter n, we have the world-wide familiar name "Indigestion," which is now getting to be more commonly employed than "dyspepsia."

Many years ago a Canadian soldier named Alexis St. Martin received a gun-shot wound in the side, which, on healing, left an opening which allowed any one to see what was going on in the stomach at any time. This was considered by Dr. William Beaumont a rare opportunity for making some scientific

observations and experiments in connection with so important a subject as that of the digestion of food. These observations were patiently and faithfully made in the progress of many months, and their subsequent publication excited an intense interest among scientific men all over the world, as being of great approximative value, and the book has been considered a standard work of authoritative reference ever since, and has been made the foundation of many works on human physiology in general, and of digestion and dyspepsia in particular.

It is proposed to make use of some of the facts published by Dr. Beaumont, with a view of convincing the reader of the demonstrable character of the deductions drawn from these facts, as an aid to him in carrying the principle of action into practical life; for it is very much easier, and a great deal more satisfactory, to follow the prescription of a physician when the judgment is convinced that they are founded on truth, than merely in a blind confidence of the statements of a medical adviser.

Dr. Beaumont saw that when the food was cut up in small pieces before it was eaten, it was dissolved, digested, sooner and more easily, as well as

more perfectly, than when it was swallowed in large pieces.

He also observed that, if the pieces were very large, it required so long a time for them to be dissolved that, before the completion of the process, they began to rot, to decompose, to become sour, and the patient complained of a burning or scalding sensation in the throat at the little hollow at the top of the breast bone and bottom of the neck in front. Sometimes this sensation extended from the stomach in a straight line upwards to the throat, this is

ACIDITY OF STOMACH,

one of the most common, as well as annoying symptoms of dyspepsia. And now that the intelligent and refined reader knows that the sensations named arise from food rotting in the stomach, as a result of the indelicacy of bolting, swallowing large chunks of food at his meals, it is not at all likely that he will do such a thing again as willingly; to leave carrion in his stomach, his whole nature revolts against it.

Beaumont also observed that if St. Martin ate rapidly, as he was very apt to do when he was hungry, or ate a great deal too much, the invari-

able result was the rotting process of the whole mass, causing acidity, the formation of large quantities of wind, passing up and down; or, if it did not thus escape, its accumulation in the intestines and stomach caused at times an insupportable sense of oppression, difficulty of breathing, or intense pain, which, in infants, is called

COLIC,

or by a still more familiar name. It is very clear that any reader with even a small amount of delicacy and refinement will have such a sense of disgust and abhorence of a deliberate and voluntary act, which fills his stomach with rotting food, that he will be at pains for the remainder of his life to cut it up fine, and eat it slowly. These two things are essential to the cure of any dyspeptic, making it literally true that one of the best remedies for dyspepsia is

A SHARP CASE KNIFE

because it divides the meat perfectly, its sinews and tendons, what a cook calls strings; and for the want of the complete division of which, persons before now have often been

CHOKED TO DEATH.

Perhaps the reader may remember that more than once in his life, he was swallowing a mouth-

ful at the table, and it seemed to be held from going down by some communication with what was in the forward part of the mouth, and was only relieved from choking by another desperate attempt at swallowing, which fortunately carried both parts of the mouthful downwards, leaving him in a considerable perturbation of mind. If he had had a sharp knife such an unpleasant occurrence could not have taken place.

It is a national trait with the English, who are great lovers of roast beef and mutton, to have sharp dinner knives; it is universal, a custom found in practical wisdom.

A judicious and conscientious parent will be at pains to explain this matter to the children, to their life-long advantage; and it may be done in so impressive a manner, and so easily, that it will be almost a crime not to do it.

Have two glasses, or "tumblers," each half full of water, take two pieces of ice, each as large as the egg of a goose, or of equal weight; cut one of those pieces into bits as small as plum stones; put them into one glass, and the one piece in the other; stir them with spoons; all the time with watch in hand, and notice how much sooner the small pieces are entirely melted, than the one large piece; and

that is the reason why it is better to have sharp knives at the table, and to cut up the food in small pieces.

It may be made more impressive because of the curious interest connected with the subject, to state that Beaumont observed, as the food entered the stomach, it was given a churning or circling motion. It went round and round the stomach, touching its sides, and, as it did so, a fluid substance seemed to come out of little reservoirs or vessels scattered about the inner surface of the stomach, and this liquid enveloped each particle of food, as did the water in the glass where were the small pieces of ice, and, by an eating or melting or otherwise dissolving process, the bits of food became smaller and smaller until they disappeared altogether, and the whole was converted into a fluid, just as the whole mass in the tumbler became water, eventually. This stomach fluid is called by physicians

THE GASTRIC JUICE,

the first word being a Greek term meaning "stomach." The whole observation showed that the food was not dissolved as is a lump of sugar in a cup of tea, by the water sinking into it, and causing it to fall apart, but causing a dissolution by

layers, from without inwards, just as a piece of candy in the mouth becomes smaller and smaller.

Another observation was, that if the food was cut up very fine as in mince meat, it was dissolved almost as soon as if it were chewed very slowly and for a long time. From this we derive the practical fact, that persons who have not

GOOD TEETH

should make up for it by having very sharp table knives, and taking time and pains to cut up every particle of food in pieces as small as a pea.

Beaumont observed further that when St. Martin was very hungry, and he looked into the stomach, the vessels along its sides were so full of gastric juice that they "stood out" as the veins do on a man's forehead sometimes, when greatly excited, or after he has been in a stooping position with his head downwards for some minutes. But when St. Martin was not hungry these vessels were scarcely visible. Putting these two things together, with a third observation, that the more gastric juice there was the sooner the food was dissolved, the practical conclusion is irresistible, that it is no use for a man to

EAT WHEN HE IS NOT HUNGRY,

because there is no gastric juice in the stomach to dissolve the food, and it can only remain there to ferment and rot, a disgusting mass, pouring forth noisome odors. This is the reason why some people have such

BAD BREATH.

A dead dog rotting in the sun sends out the sickening gases in every direction; rotting meat in the stomach of a glutton does the same thing, hence it is that you can smell some people a mile off—more or less. This festering, rotting mass of food in the stomach cannot escape, it remains there for hours, a whole day sometimes. This is what is meant by

"TASTING FOOD"

a long time after it has been eaten, indicating that it has not been digested; if it had we would have "heard no more of it" since the moment of swallowing it. So when food is "tasted" after it has been eaten it means that the person has taken too much, or the quality was not adapted to the then conditions of the stomach—has not

AGREED WITH IT.

But another result follows having indigested food in the stomach: being confined there its gases and more liquid particles are absorbed into the system, that is make their way into the blood, corrupt it, poison it, and render it unfit for natural purposes. But the nerves feed on the blood, and blood and nerves are at every pin point of the human body; when, therefore, they find that their food is not natural, is not good, they complain; that is unnatural sensations are produced—these we call

"SYMPTOMS,"

and if any person will take the trouble to listen to the interminable narrations of an unfortunate dyspeptic, and make a note of them, he will soon find that there is scarcely a spot in the whole human body, from

TOP TO TOE,

which is not the seat of some symptom or other—of some ache or pain, or hurting.

DIGESTIBILITY OF FOOD.

Dr. Beaumont spent a great deal of labour in ascertaining what time was required for the digestion of various kinds of food. Cole-slaw, boiled rice, boiled pig's feet soused, tripe soused and boiled, required one hour for complete dissolution in the gastric juice; when it was then ready to be passed out of the stomach and forwarded to other parts of the system, to yield nourishment and invigorating powers. Whipped eggs, raw; salmon trout, boiled or fried; barley soup; sweet mellow, raw apples, and venison steak required an hour and a half; wild game, two hours and a quarter; roasted beef and mutton three hours, and roast pork, beef suet and tendon over five hours. Fresh meats broiled were more easily digested than roasted; and fresh meats were more easily digested than vegetables; hence the general rule for dyspeptics should be to select such articles of food as are soonest and most easily digested, provided no discomfort follows, and the system is strengthened.

Whatever kind of food seems to strengthen a dyspeptic, and can be eaten without any ill-feelings afterwards, that is the kind for such a person,

regardless of the time it requires for digestion, according to the tables.

The experiments on St. Martin showed the time required for digesting food by an ordinary healthy person, but these are modified in case of the sick and feeble, and as some persons relish one kind of food and some another, and, as what is eaten with a relish, is more likely to be digested easily, and so impart nourishment and strength, it follows that no one should be a rule for another, each must be a

RULE TO HIMSELF.

Hence, in laying down the diet for a dozen dyspeptics, no two, perhaps, would be exactly alike as to quality and quantity.

The first point in every case is to take that food which "agrees" best; that is, which is followed by the least possible discomfort, remembering always, that an article may agree very well if taken in small quantities at a time, but in larger, would cause very great discomfort. The easy method in all such cases is to eat less and less at each meal until no disagreeable sensation is observed to follow, and keep at that amount for a short time, until the system becomes stronger, and then the amount may be increased.

Some item of food may not agree with the dyspeptic to-day, or this week, or month, but may do so very well at a future time.

It will be a great comfort to the dyspeptic, and of considerable importance in promoting and hastening a cure in ordinary cases, to

AVOID NOTICING SYMPTOMS

as much as possible. It is a most miserable employment to be looking about for aches and pains, and it is quite as unprofitable to be all the time thinking about what shall be eaten at the next meal. It will be a great point gained in every case to have some business, some occupation, some object to accomplish immediately after each meal, of a sufficiently engrossing and agreeable nature as to carry the mind away from the body and its conditions. To this end, in the case of women and others who, from any cause, are mostly indoors, it would answer a good purpose to have a leisure walk, or friendly visit, or domestic out-door errand, after each meal, having a companion to talk to as often as practicable, for solitary walks, even in the bustle of a city, are doleful occupations, and do but little to wake up the life currents; but if there is an object in view, a friend to be visited, a letter to be deposited

or a purchase to be made, or an engagement to be fulfilled, then it is a different thing; but, in any event, endeavour to have the mind pleasantly occupied all the time if practicable, and as much of the time as possible should be out of doors in the open air, at least two or three hours every day, a part of the time in the forenoon, and a part in the afternoon before sun own. An hour twice a day is better than two hours at a time, thus avoiding over fatigue in case of the feeble.

The rule should be in all cases to turn homeward before one is much tired, for every step taken after weariness comes on, does more harm than good and paves the way for an easy taking cold after reaching home; not forgetting that actual fatigue impairs the digestion, for, the whole body being weak, the stomach bears its proportion of the debility.

It is desirable that the dyspeptic should take some moderate exercise out of doors after each meal, as well after supper, or the last meal of the day, as after breakfast or dinner. There is nothing hurtful in the night air after a regular meal, if the person takes the precaution to exercise with sufficient vigor to keep off a feeling of chilliness. This should be the rule in all forms of exercise out

of doors; to keep off chilliness, for its tendency is to arrest the process of digestion on the instant, beside the danger of taking cold.

The reader will bear in mind that this line of remark has been fallen into in connection with having something in hand after each meal, as a means of diverting the mind from the condition of the body, and of breaking up the miserable habit of dwelling on one's bodily discomforts, which always aggravates dyspepsia and impedes its cure.

Dr. Beaumont observed that while some articles of food were digested in an hour and others in three or four or more, that an ordinary meal, made up of several articles, was digested within five hours and passed out of the stomach; but, during that entire time, the stomach was in motion, sending the food round and round, by the action of its various muscles, pushing and pushing incessantly; then, and not until then, it rested. The busy heart is in perfect repose for one-third of its time, this is its sleep; in the same sense, the stomach sleeps after each meal, and now comes in

THE BOTTOM FACT,

the fundamental principle, the foundation stone, the key of the corner, in connection with the treat-

ment and cure of all cases of dyspepsia. Beaumont observed that, if after a regular meal, half an hour or more before that meal was digested, something else was eaten, the process of digestion of what was already in the stomach was arrested until what was last eaten was brought to the condition of the food which had been taken at the regular meal; thus keeping the entire mass of food in the stomach that much longer, and keeping that organ at work that much longer, overtaxing its strength, exhausting its powers; doing this for one time causes acute dyspepsia; keeping it up is chronic dyspepsia—the dyspepsia which is the bane of the American people; in other words, dyspepsia is usually brought on by

EATING TOO OFTEN.

And when once firmly fixed in the system, in the course of weeks or months, it is then kept up by

EATING TOO MUCH.

Dyspeptics are always hungry, are only happy when they are eating, and, as soon as they are done, their torments begin, to continue one, two, or more hours, during which time they are unmistakably miserable. This incessant, this

GNAWING HUNGER,

of the dyspeptic, may be said to be a mistaken notion of the instinct; and may thus be presented, with the view of enabling the reader to understand an important principle. When a man is hungry there is an uncomfortable sensation about the stomach; he eats a good dinner and the discomfort is removed; and thus it continues for years, the instinct calling for food to be introduced into the stomach whenever there is hunger. But

HUNGER

is the system's method of indicating that it wants replenishment and repair, a new supply of strength through a new supply of nutriment; and, as these supplies have been furnished hitherto by filling the stomach with food, instinct concludes that food is wanting to appease hunger, to supply nutriment, and to give strength, hence calls for food in such imperative tones, sometimes as to be almost irresistible, even by persons of the strongest minds. Hence the dyspeptic feels every day that he cannot possibly wait for his dinner—that he must, at least,

HAVE A BITE,

to stay his stomach; but this is a vicious appetite, it tends to aggravate the disease, and must be resisted at any sacrifice of mere comfort, and the result will be, usually in a few days, that this

FORM OF TORMENT

will pass off, and will constitute one of the first steps towards mastering the disease.

Speaking unscientifically, for the purpose of being understood by unprofessional minds, the instinct for satisfying hunger having been appeased by filling the stomach with food, the system imbibed the impression that hunger would be appeased, and the body supplied with the nutriment and strength required by filling the stomach with juice again; but in its want of strength, it continued to call for food, while, in reality, it was not more food that was required but the proper digestion of what had already been taken; and, as what had already been taken, was not digested, taking more only added to the trouble; for if the stomach could not digest what was already in it, it would be still more unable to digest an increased quantity. Hence, although the confirmed dyspep-

tic is, through blind instinct, calling for more food, he should bring his reasons to bear in the light of the statements just made, and summon all his moral courage to eat less and less, instead of more and more, steadily diminishing the quantity, with the assurance that the stomach will digest a small amount when it would fail to do its work with a larger quantity, and would derive more nourishment and strength from this smaller amount well digested, than from a hearty meal not digested at all—that is, all digested to a certain extent, but none of it so well digested as to impart any strength to the system. And, as hunger is the sensation put forward by nature to indicate that she needs a new supply of strength, and the food of the dyspeptic not being healthfully digested does not give that strength, the hunger continues, and the torment is incessant, the patient is always hungry, never satisfied.

Awhile ago it was stated that if a person often ate after a regular meal, that is, fell into the habit of

EATING BETWEEN MEALS,

the process of digestion was lengthened as therein described, and, instead of the stomach having to work five hours and then getting some rest, it had

to work one, two, or more hours longer than natural, and, this thing going on meal after meal, the result is that it is kept working

FROM MORNING TILL NIGHT,

and is thus "worn out," "overtaxed," "worked to death," "loses its tone," as popularly expressed; and, having been "overworked," the remedy is to remove the cause and give it rest by eating less, and thus afford it an opportunity to regain its strength; precisely as when a man has been exhausted by violent or protracted exertion of any kind, he regains his strength by moderate labour or absolute repose. The method to be adopted is, to eat less and less at each meal, until no discomfort whatever is experienced; continue at that for several days, although it may not seem to be enough, and the stomach will get stronger, when the amount eaten may be gradually increased. While thus eating less, it is of quite as much importance to eat less often, and resolutely avoid

EATING BETWEEN MEALS.

It is the opinion of most medical men of extensive observation and experience that a large proportion of all dyspepsias among women is brought on dur-

ing the teens of girlhood, when, living at home and being always ready to eat, as young persons in health are, they are very apt to nibble at anything they see in passing about the house, as an apple, orange, bunch of grapes, bit of cake, and the like; this breaks into the habit of eating regularly, keeps the stomach always at work, gives it no rest, it wears out, and confirmed dyspepsia follows on apace.

It is quite probable that more cases of dyspepsia are caused by eating too often than in any other way, and, in order to regulate that, we must be guided by nature. If it requires four or five hours to digest a regular meal and pass it out of the stomach, there should be at least five hours interval between meals: that is, between breakfast and dinner, and dinner and supper; this will keep the stomach at work twelve or fifteen hours out of the twenty-four, and the remainder of the day will be for rest. This seems to be the natural order of things for steady workers, the day labourer, the farmer, and the mechanic. In accordance with these views it is found that a man cannot work to advantage longer than six hours without eating.

In this connection it would seem to be a legitimate inference, that, as comparatively little work

is done after supper, and less strength is required for this, much less food is necessary at the last meal of the day. If a hearty supper is taken, it keeps the stomach at work to a late hour in the night. The other part of the body is resting and sleeping while it is toiling on to dispose of the supper, hence it does not get its share of rest, and is, as a consequence, worn out before the rest of the body; but, on the proper performance of its duty, the natural amount of strength for the body depends, and, as the diseased stomach cannot adequately supply that strength, the body gradually weakens, and all its functions also become impaired; hence dyspeptics have very little endurance, very little vitality, very little power of resisting disease, and, as a consequence, fall an easy prey to any prevalent malady.

It is a law of nature that every organic substance, everything which has once had life, but has it no longer, will soon begin to decay after a short exposure to warmth and dampness, such is the case with all meats, vegetable, and fruits, which we all know soon begin to decay in warm weather.

The interior of the stomach is always at about a hundred degrees, considerably warmer than summer weather, hence, if food is kept in but a little

l nger than the natural time without being properly ac d upon, it will inevitably begin to decompose. Therefore, if a person eats too much or too often, the process of digestion is extended beyond the natural time, and the inevitable result is decomposition, which, as previously explained, poisons the blood and renders it unfit for imparting nourishment and strength to the system.

It is thus seen that the three universal causes of dyspepsia are the habits of—

Eating too much;

Eating too often;

Eating without an appetite.

This last was explained in a previous page. In the first two the stomach was kept too long at work and could not perform its functions properly; hence the food decomposed, with its unhealthful result. In the last case, there being no gastric juice to perform the offices of digestion, the food remained unchanged, until decomposition began to take place according to invariable natural laws, the result being the same as in the two first, innutrition, blood-poisoning, nerve-starving, and nerve-complaining, giving rise to "symptoms" as variable and as numerous as the parts of the body.

All dyspeptics grow worse constantly, because, when the stomach begins to fail in its functions, the nerves begin also to fail, in consequence of the stomach failing to supply them with healthful food, and they, in turn, begin to fail in giving power to the stomach to discharge its appropriate functions; hence one acts on the other, and continually aggravating the malady, making it more and more incurable, and rendering the unfortunate patient more and more miserable, not killing him outright, but causing him, in many cases, to kill himself, as the shortest way of terminating tortures which were otherwise interminable.

Beaumont observed that whatever St. Martin ate at a regular meal, whether vegetables, or meat, or both, whether of two articles or a dozen different ones, the color and consistence of the digested mass were about the same, leading to the practical inference that a great variety of articles of food at any one meal, was not harmful, was not incompatible with the healthful functions of the stomach. In other words, the quality of the food was not a factor in causing dyspepsia; it was quantity; we may eat almost anything without discomfort and with natural results, if it is not too much for it. We may eat half a pound of bread at a meal with comfort, but not

half a pound of sugar; we may take a pint of soup, but not a pint of syrup.

On general principles variety at the table is indispensable to good health, because the human body is made up of many different elements, hydrogen, nitrogen, phosphorus, acids, alkalies, carbon, and others; without these we cannot live.

Without carbon we would freeze to death, and sugars, and fats, and oils, are, as it were, consolidated carbon; hence we consume them in large quantities in cold weather, in the shape of roast pork and fat meats, and the inevitable buckwheat cakes and molasses, with a large amount of butter added; it is the carbon of these which generates the extra heat within, to antagonise the extra cold without. Nature craves these in the winter time; it is this which makes it a bliss for the Esquimaux, who live amid eternal ice and snow, to have the opportunity of eating a dozen or two tallow candles at a meal, or of drinking two or three gallons of train oil, or any other kind of oil, at a sitting.

But fruits and berries, the apple and the orange, the cherry and the lemon, have not an atom of carbon. We do not need it when these are in their season. So wise and kind is the Omnipotent One

in providing these in the summer-time, with their delicious acids, which cool off the system.

The various kinds of fish and living things in all the oceans and rivers and creeks and running brooks on the globe abound in phosphorus, which is the essential and principal food of the brain, the glory of man, and more largely than any other aliment do the inhabitants of the great deep supply this essential principle; and the love of fish seems to be common to all peoples.

These statements show that variety of food is necessary to the highest well-being of man, that those who live amid the sources of the icebergs require the carbon of the oil to keep them warm, and there are found the walrus, and the whale, and the polar bear, all revelling in their fatness, while in southern climes, where the people dwell in tropical heats, a beneficent Providence has sent the orange and the lemon and the banana and other fruits in their wonderful profusion,

TO COMFORT AND TO COOL.

But in the regions of the earth, in the temperate zones, where it is warm during half the year and cold for the remainder, both cooling and warming foods are supplied in almost every form, and in the

greatest abundance. We have meats and oils, and fruits and acids, in almost endless variety, so wise and kind is He whose loving kindness is over all His works, to provide for us, the creatures of His power, the children of His love—His offspring.

But this very variety of food is a prominent cause of dyspepsia, and will continue to be, until we bring our reason to bear on the subject and have the self-denial to learn to use them

WISELY AND WELL.

This item of experience has occurred to the reader, in the course of a life not very long, a dozen or a hundred, if not a thousand times. He has made a hearty meal, has pushed back his plate and has a feeling of satisfaction, delightful to contemplate. He is at peace with the whole world; unlike

OLIVER TWIST,

he does not want "more," and indeed, there is no room for it. But, at this juncture, an unexpected dish is presented; mayhap it is a favourite one: one which he may not have seen for weeks and months before; it may be the first of the season. In an instant a marvelous change comes over

THE SPIRIT OF HIS DREAM,

and with that he "turns to," and eats almost as much in amount as he had already done. He has doubled his dinner, and imposed an equal proportion of extra labour on an already labouring stomach, to its inevitable injury. It is for this reason

DESSERTS ARE HURTFUL,

not that they are of themselves unhealthy or difficult of digestion, if properly made, but because they tempt the appetite and induce persons to eat after nature has been satisfied, and to that extent overtax and impair the abilities of the stomach, with the results already alluded to.

Desserts are as healthful and nutritious as other ordinary articles of food, but, taken after nature has had her fill, they cause fulness, oppression, nausea, or other forms of dyspeptic symptoms, which are attributed to the last thing eaten, instead of the real cause, an overfilling of the stomach, which the regular meal had as much a part in doing as the dessert.

It is a very wise custom on the part of some French and other European families, and at some

hotels in Germany, to have little delicacies on the dinner table when the parties first sit down; and while waiting for all to collect, and for the first dish to be served up

"PIPING HOT,"

an apple, or an orange, or a bunch of grapes, or bit of sweetmeat, is taken and "nibbled" at during the intervals of conversation; the result being that any over-hunger is stayed, and the appetite is modified, so that fast and excessive eating is prevented. Hence, if the dessert is taken at the beginning of a good dinner, or is eaten instead of dinner, the day before or the day after, no harm can result, and, in as far as it increases the variety of the food eaten in the course of any meal, it is positively beneficial.

The necessary requisites of a variety of food may be very well met, with great physiological advantages, by having each meal different from the next and the preceding, but let each consist of not over three articles of food. This is good for all; for, dyspeptics it is essential; for the inevitable result will be, in all cases, that there is not likely to be any over-eating at that meal. Any reader can try it for himself, and, let him be ever so hungry, and

the dinner consist of roast turkey, stale bread, and potatoes—or roast turkey, macaroni, and cranberry sauce—it is not at all likely that he will eat too much, and yet will feel satisfied; and as a very common symptom of dyspepsia, is a craving appetite, an excessive hunger, the temptation to eat too much of a

SPLENDID DINNER

might be, and is often, irresistible; but he escapes this temptation, and the trying conflict of resistance, by sitting down at the less various dishes, and he avoids the constant conflicts of hard self-denials.

The rule then for all who aim to rid themselves of the various forms of dyspepsia by the simple means of regulating the diet, without the purgatorial infliction of feeling always hungry, and of getting up from a fine dinner before one is done, is imperative that each meal should be made of not over three articles of diet, giving the preference to

Lean fresh meats;

Stale brown bread, and

Fruits, ripe, raw, fresh, eating them half an hour before.

In almost all cases, it is better to drink nothing whatever; if a person is weak and chilly, a cup of hot drink, which is at the same time palatable, is a positive benefit; it revives, it makes up the circulation and overcomes or prevents chilliness, which conflicts with healthful digestion; for Beaumont observed that, if St. Martin drank cold water during a meal, it instantly arrested the process of digestion, just as instantly as the process of boiling is arrested if iced water is thrown into the vessel, and digestion was not resumed until the cold liquid introduced had become as warm as were the contents of the stomach before it was drank. The temperature of a healthy stomach is about one hundred degrees, that of ice water about thirty-three, and to impart to this ice water just double its heat is a very serious draft on the vital heat of the system, enough sometimes to cause instant death, as when a person in a very heated condition, drinks largely of any cold liquid, even milk or water. The writer's grandfather died after a short illness, in Devonshire, England, from drinking a glass of cold milk after a walk, on a hot summer's day. A gallant French general, in his efforts to hurry up some artillery to the top of a mountain covered with snow, dropped dead from drinking a glass of

snow-water—not from any quality in the snow, but from the temperature of the liquid; it abstracted heat from the vital parts with too great rapidity.

Some persons are able to drink several glasses of ice water during a single dinner on a summer's day; it's because they have large reserves of vital forces. The reader has no doubt observed several times in the course of his life, a little chill running over him during dinner; it was either because he was eating something too cold, or had taken too much cold liquid of some kind; a greater degree of this chilliness would have been death.

There are a number of cases in standard medical works of persons dying at the dinner table, or soon after, of congestive chill, as the result of either

Eating in a chilly condition,

Drinking too freely of cold fluids,

Taking cold food, or ice cream, or

Eating so much, while in a weakly condition, that the general system in the effort to supply the imperative demands of the stomach for warmth, wrecked all the wheels of life, shattered the whole mechanism.

These are facts, not conjectures nor theories, and should impress all with the danger of running any of the risks named by either of the four habits

just enumerated; and it is vitally necessary on the part of dyspeptics to heed them. These things being true, no person should eat while feeling chilly and if not comfortably warm at the beginning of a meal, or during its progress, some drink should be taken, not merely warm but hot, the comfortableness of it will be almost instantaneous. The dyspeptic should ordinarily not drink anything from half an hour before to half an hour after a regular meal, cold or hot, because—

First, the bulk of the draught tends to distend the stomach, which pressing up against the lungs, crowds them, diminishes their space for work, for taking in air enough for the wants of the system, hence the dyspeptic often complains of oppression, of shortness of breath in going up stairs soon after a meal. Second, if the fluid taken is cold, it causes chilliness and all its ill-consequences as above named. Third, by diluting the gastric juice, it lessens its power of dissolving the food whether the drink be warm or cold; it is hoped the reader will feel the force of this statement without exemplifying it. Fourth, persons will eat less if nothing is drank at meals.

The dyspeptic should steadily guard against studying, or

WORKING SOON AFTER EATING;

because it is of the first consequence that the process of digestion should begin and continue with all its force until the whole work is done, this process is carried on by what is called the nervous energy of the system; it must not only be carried on but it must be done without interruption; for if suddenly arrested for but a short time, convulsions or death sometimes ensues. In ordinary good health, the different parts of the human body, its various works and manufactories—

Brain,
Heart,
Lungs,
Stomach,

Liver, &c., are supplied with their needed amount of nervous power, as a well-defended and guarded fortress has soldiers stationed at various points, but if anything happens by which a larger force is required at any one point than the others, each of the others detaches a portion of its strength to the needed point; so when a man wants to make an extra effort in lifting, he draws in an extra supply of breath, to do which extra nerve power is required in the lungs; so also, when the stomach is filled

with food, an extra supply of nervous energy must be sent there to perform the work, this extra amount is made up by details from all the other workshops named; but if nature's instincts are overruled and a man by force of will attempts to climb a pole or run a race or perform other extra activities, the strength is compelled away from the stomach and digestion ceases.

An eminent French experimenter fed six dogs heartily; three of them he locked up in a dark apartment where they went to sleep; the other three were sent on the chase; on their return their stomachs were examined and the food was found unchanged; while the sleeping, resting dogs had digested their dinner fully. The principle is acted out in practical life in various ways. No horseman will go on a gallop the moment his trusty animal has been fed, because he knows his life will be endangered, and further, even if that was not the case, he would travel farther by the end of the day and with less fatigue, if, for the first two or three miles, the gait should be that of a leisure walk.

The instinct which is given to all the animal creation, as an

AUTOMATIC LIFE PRESERVER,

supplied by infinite intelligence, leads the horse, the hog, the dog, and even the feeble-minded chicken, to roost or rest or lie down soon after eating a full meal; not even calling away from the stomach the nervous power necessary to stand up or do anything more than breathe. This brings us face to face with a practical fact of immeasurable importance to

ALL THINKERS.

Students of all professions and of all classes and of all departments of human knowledge are most liable, next to women, to have their lives made miserable by dyspepsia, brought about by that

IMPATIENCE OF DELIGHT

in study, to go to their books immediately after meals, compelling the nervous energy away from the stomach, and this being repeated every day, and sometimes three times a day for weeks together a disease is engendered, which is not only to embitter life, but to seriously interfere with

PROFESSIONAL DUTY.

In connection with the fact that the blood feeds the nerves and thus supplies them with their power of

work, and the brain being the fountain head of all nervous powers, it has been recently demonstrated, that if a man is sitting still and in a quiet frame of mind, his pulse beats at a certain slow rate; but, on the very instant of the introduction of a striking thought, the pulse is increased in rapidity and the fullness of its flow, showing clearly, that one additional thought in the brain requires an additional flow of blood, both in quantity and rapidity and hence an additional supply of nervous force, and that supply of increased nervous force must be large, when there is continuous and exciting thought, as there is in the case of hard study; this increase of blood flow in case a single exciting thought is presented to the brain is as accurately and perceptibly measured as in a pulsometer or the glass tubes of Fahrenheit. Any student who, in the face of these statements, will persist in going direct from the dining-room to his study, outrages nature, will inevitably sacrifice his health and his usefulness and must blame himself for all the

DYSPEPTIC TORMENTS,

which he will certainly be called to endure, sooner or later, and not very late either. The dyspeptic

will see in this and the preceding statements that if he wishes to expedite his release from

DREADFUL CHAINS

he must make up his mind to

Avoid study,

Avoid labor,

And avoid all bodily and mental excitement after eating regular meals, and that he should court quietude, repose, rest, not even reading an exciting novel, for half an hour or longer; and yet there are many persons who, following an indoor life, make it a habit to read up to the moment of sitting down to regular meals, and resume the reading immediately after; whereas, both before and after meals, it would be better to allow half an hour for mental and bodily rest; before meals so as to permit the nervous energy to be directed towards the stomach by thoughts of eating, so as to have a good supply to begin with. The student knows that oftentimes the call to dinner is positively disagreeable, the following out of a thought, the recording of new ideas or trains of reasoning, is more delicious than the nectar upon which

FAIRIES AND ANGELS

are said to feed; and if called to dinner under such circumstances, he sits down to the table with mechanical indifference, eats like an automaton, is glad when everything is cleared from his plate, and hies off to his beloved study and manuscript, with a sweeter interest than any lover ever kept an

APPOINTMENT FOR HIS DARLING,

knowing no more what he had eaten than Esau knew of the taste of Jacob's soup-bowl. Whether it is true or not, it was a perfectly natural narration that when Newton, or some other great mind, was sitting beside his lady love with one hand in hers, he took her finger and put the end of it in the bowl of his pipe to adjust the contents, to the intense disgust of the lady, who thereby divined that she, at least,

WAS NOT IN ALL HIS THOUGHTS.

The act was instinctive, mechanical, his thoughts among the stars. The way, then, for a dyspeptic to eat a dinner is to think about it beforehand, to think about what he's doing during its progress and give the mind perfect rest after it is over for half an hour or more.

The habit of the animal creation is not merely to rest but to sleep after a full meal, and there can be no question that for the old, the infirm, the feebles and the very dyspeptic, a few minutes sleep on a lounge, not exceeding ten or fifteen, and to be very gradually waked up, is very advantageous. If one lies down on the bed the nap is most likely to be extended to an hour, or more causing, a certain degree of unrest or want of comfortableness for the remainder of the day, besides the probability of its interfering with sound sleep during the night.

SURFEIT

in a man is founder in a horse. Most persons are occasionally entrapped into a too hearty meal and especially the dyspeptic, who has to withstand the remorseless demands of a depraved appetite. The result is such an uncomfortableness all over, that the person feels he must take something; that something is generally some form of spirits; putting more into the stomach, where the trouble is, that there is already too much there. A very prompt and efficacious remedy is to drink tepid water, a pint or two or more, and then introduce a finger or a feather into the throat; by this means the stomach will be speedily emptied, the patient

fall asleep, and the error is rectified; but these are violent means, and many times may not be convenient or easily practicable. If in the day time, a leisure continuous walk in the open air in the sunshine, if cool, for the point is to keep off a feeling of chilliness; the exercise should be sufficiently active to cause a slight moisture on the forehead, and should be continued until the discomfort has measurably passed away. On returning home, it is important to cool off very slowly, in a warm room or before an open fire, not taking any of the outer clothing off for five minutes, and then remove one article at a time; otherwise, a cold may be taken, which may throw back the patient to a point which it may require several days to recover from. Very often a person becomes aware that he has eaten too much after dark, or on going to bed, or after his first nap, by a feeling of fulness or general unrest: under such circumstances, it is a good plan to put on stockings and slippers and with only a night gown, walk the floor, rubbing the hands over the body in every direction; this stimulates the skin to action, invites the blood and humors to the surface, cools the skin, subdues the febrile condition of the system, gradually brings the relief desired, and the wearied body finds the bed a welcome, and

falls asleep. At other times, more decided means are necessary; there may be nausea almost causing vomiting, there may be a burning sensation about the stomach or throat or in the both; or there may be immense quantities of wind; this, in addition to what has been advised in a previous page may be carried out—that is patiently rub the warm hands over the abdomen, alternating it with frictions downwards, with the ball of one hand, pressed upon by the other, from the right thigh bone towards and beyond the navel; this operation tends to press the contents of the overfull stomach out of it at its lower orifice, stirs it up to work, and sets the bowels in motion, carrying out immense quantities of wind; these walkings and frictions and kneedings should be kept up until relief is given; if before that, the patients gets tired, he can lie down awhile, and when a little rested, resume the operations. This kneeding is quite as applicable to

SICKNESS AT STOMACH,

as it stimulates the liver to unload itself of accumulated bile, passes it out into the upper intestines, at a part just about where the stomach empties into it, thus also relieving the gall bladder

of its contents, the natural action of which on the alimentary canal, is that of a cathartic, to carry all before it, downwards and out of the system. It is to be hoped that the reader, by this time, has become adequately impressed with the idea, that it is easier to avoid a surfeit, than to get rid of it, for he has only to eat very slowly, drink nothing, and partake of what is before him in great moderation, as small eaters will live long, and, in the course of a lifetime, eat a great deal more, and derive a great deal more pleasure from eating, than those who, acting otherwise, die soon and then do not eat at all.

Some observant and intelligent writers have recorded of themselves, that their first recollection of dyspepsia was as early as the years before they were seven, and there can be no more doubt of the fact that the

TONE OF THE STOMACH

is ruined for life by giving infants opiates and soothing syrup to keep them quiet, than that drinking rum, and gin, and porter, and toddy, and other spirits to

"MAKE MILK,"

is the foundation of the love of drink in after life, an unaccountable hankering after ardent spirits.

A healthy infant seldom cries except for pain, as the result of physical violence or over-eating; ignorant mothers and unprincipled nurses drown their cries with soothing syrups. More infants perish from over-feeding every year, than from all the other causes combined, unless it may be bad air and want of bodily cleanliness.

The result of the injudicious feeding of infants and young children has made the period of child-nursing and raising, a source of suffering and death to the infants themselves, and of care, and trouble, and worry, and anxiety, and broken rest, to mothers, which cannot be expressed comprehendingly by any array of numerals, and, as the foundations of dyspepsia, in innumerable cases, are laid in the early years of childhood, and on to mature life, it is directly in the line of this book, which promises on the title page to treat of the causes of dyspepsia, or point out clearly and plainly and in the most systematic manner possible, how children should be fed, beginning with the first hour of life, premising that in "Health at Home," or "Hall's Family Doctor," the whole subject is fully discussed in the course of many pages, for the express benefit of

YOUNG MOTHERS,

who so imperatively need just such information. The child should be first fed within six hours after birth, not delaying beyond ten hours, by any means. For the first feeding, give a teaspoonful or two of weetened barley water, or very thin gruel, or milk, and water. The stomach of a new-born child will not hold more than two tablespoonfuls of anything, and it takes a good while to get a single teaspoonful down, a few drops at a time.

For the first week, the infant should be fed every two hours during the day time, and every three hours during the night. Make it wait.

After one week feed it every three hours during the day—once at bed-time, once in the middle of the night, and then at day-light. Make it wait. Continue this for six or eight weeks; then at intervals of four hours during the day, from sunrise to ten o'clock at night, and not during the night at all.

At the end of three months, the child should be habituated to take nothing from bed-time until the regular breakfast next day, say an hour after sunrise; make it wait. It may be allowed to nurse

three or four times a day until two years of age, when any child can be habituated to eat thrice a day, and nothing whatever between meals. If this clear, sharp rule is laid down and reasonable adhered to, until marriage, an amount of sickness during infancy and childhood would be prevented, not easy to compute, with the advantage that the little ones seldom cry, would seldom cause their mothers the loss of a single night's sleep, and, in addition, would be so much more healthy, would possess so much more vigor of constitution that ordinary diseases would be repelled, and those which it is necessary for them to have, as measles, mumps, and the like, would be so light in their character, that no medical aid would be needed, and they would be "carried through" by securing proper warmth, pure air, clean persons, and confinement to the house for a week or two after the ailment has spent its force on the system. Many children have died or have had fastened on them the seeds of consumption, in consequence of little colds taken by their parents being in too great a hurry to send them out of doors. And life long dyspeptics are often engendered by hurtful medicines being given to cure their little cold, which fastens on the lungs, giving cough, or on the bowels

giving troublesome diarrhœa. Soothing syrups being used in both cases with great freedom, with the very frequent result of driving the disease to the head and causing convulsions or water on the brain; stopping the cough, arresting the diarrhœa; the foolish parent not seeing that it was only a transfer of the malady to a more vital part, lauds the medicine and bewails the accident of the other disease coming on at that inopportune time. Taking this view of the case, the next child is treated in the same way with similar results, the light not breaking in upon the mind until several children have died, that there was an intimate connection between the soothing syrup and the destruction of the darling little one.

For looseness of bowels various preparations of lead are given, often resulting in organic lesions of the coats of the stomach, giving rise to incurable forms of dyspepsia. The intelligent reader should therefore bear in mind that the disappearance of a symptom from the use of medicine is not always a proof of its cure, and this consideration should be a good reason for a thorough and persistent effort to accomplish the cure of dyspepsia by means of a regulation of the diet on the principles advocated in the preceding pages. This is of special impor-

tance in the case of dyspepsia, because so many persons have what they consider a perfect cure for it, and are the more ready to communicate their method because it has the very great advantage that it can do no harm if it does no good, as it is such a simple remedy; a little saleratus for example, which will cure the belching or remove the acidity in five minutes; which is very true, but removing a symptom is not eradicating a disease; smothering a fire is not putting it out. A gentleman who suffered from a mild form of dyspepsia was advised to take a little soda dissolved in water after each meal; it

WORKED LIKE A CHARM.

He spent a considerable portion of his time in speaking of its wonderful virtues to his friends and to everybody with dyspeptic symptoms, who happened to come under his notice. One day he fell down dead.

If you put a tablespoon of sugar in a cup of warm water, it disappears; but allow the vessel to remain on the stove, the water will soon disappear and every particle of the sugar will be found in the bottom of the cup. The soda was dissolved in water and drank; the water evaporated in the warmth of

the body and left the soda behind in a solid mass; weighing several ounces, and in a position in the alimentary canal which caused death, as above stated. A remedy which has no capacity for harm, has no power of doing any good

EXPERIMENTS.

The experiments of Dr. Beaumont, in ascertaining the time required to digest various kinds of food, are the foundation of all the tables which have been prepared since in Europe and America. Many things in reference to the same subject needed further investigation, and the author wrote to Dr. Beaumont, in 1854, to know if he intended to prosecute his inquiries. He replied that he did so if arrangements could be made with St. Martin; but before that could be brought about the doctor died. St. Martin visited New York afterwards, and then went abroad with a view to ascertain if he could hire himself out to experimenters; but, as far as known, no one was willing in all the world to take the trouble.

In looking over these tables the reader should regard them as only approximative, and as general truths, for it is known that some persons can digest some articles of food sooner than others, and with greater ease.

The proportion of the elements of various kinds of food have been ascertained at great cost of time and labor by chemical analysis, and may be regarded as scientifically true. But, in reference to the whole subject, nothing can be more certain, than, if any man lives by any rule as inflexible as that of the Medes and Persians, which could never be repealed, he would not live long. The best and healthiest way of eating is in general to take what one likes best at regular times, and nothing between; and he is among the

MOST MISERABLE OF MEN,

who spends a large part of his time in thinking of what he must eat the next meal, or who eats according to rule, rather than instinct, rather than according to nature; who eats this because it is winter and he needs carbon, or takes that because it is summer, and hence he must discard meats and fats and sweets. They live longest in all climes who eat whatever is before them in moderation and live industriously either as to brain or body, for it is quite as exhausting on the reserves of strength to think hard as to work hard, and it makes a man quite as hungry. Hence the food tables which fol-

low are to be used more as general guides for general information.

In the table on the following page it is to be considered that seven thousand grains make a pound, and it is to be read thus: in any pound of baker's bread there are twenty hundred grains of carbon of the heat producing principle, and ninety grains of nitrogen, the principle which gives strength and out of which flesh or muscle is made.

No. I.—NUTRITIVE VALUE OF FOOD.

PROPORTION OF CARBON TO THE POUND, ALSO OF NITROGEN.	CARBON.	NITROGEN.
Whey,	154	13
Turnips,	238	—
Beer and porter,	315	1
Buttermilk,	335	34
Skimmed milk,	350	34
New milk,	378	34
Carrots,	385	14
Green vegetables,	420	--
Parsnips,	420	12
Potatoes,	770	24
Whitefish,	900	130
Beef liver,	1226	210
Red herring,	1435	217
Baker's bread,	2000	90
Molasses,	2200	—
Beef,	2300	175
Skim cheese,	2350	364
Cheddar cheese,	2520	315
Pearl barley,	2660	92
Rye meal,	2660	70
Seconds flour,	2660	130
Split peas and rice,	2730	70
Indian-meal,	2800	130
Oatmeal,	2800	140
Sugar,	2800	—*
Mutton,	2900	140
Fresh pork,	2950	110
Cocoa,	3934	140
Green bacon,	3990	80
Dry bacon,	4270	100
Sweet butter,	4585	—
Lard,	4820	--
Suet,	4700	—
Fresh butter,	4700	—
Dripping,	5320	--

* Sugar, syrups, dripping, suet, lard, and butter, contain no appreciable nitrogen.

ESSENTIAL ELEMENTS OF NUTRITION.

The dyspeptic will note with interest that the food which is best for him contains the largest proportions combined of the two most essential elements of nutrition—meat and bread; to be more specific, lean meats and cereal food—that is the whole of the grain of oats, rye, wheat, barley, or corn, made into porridge. For example, oats and Indian meal contain among the highest, the constituents of carbon; and, at the same time, the fresh lean meats, of beef and mutton are among the richest articles named in nitrates, and in addition to that are among the easier kinds of foods for digestion, requiring but about three hours. The ox lives on grass and hay and corn, and his powerful stomach grinds these up for flesh-making materials in himself, does the rough and hard work, as it were, for us, turns these into flesh, leaving for us to take that flesh and do the easy remaining part of turning it into our flesh.

Again, bread and cheese abound largely in both carbon and nitrogen, hence it is that the sturdy English laborers and farmers are very well satisfied to make a dinner on

BREAD AND CHEESE,

especially if the inevitable mug of beer is added to "wash it down."

There is another reason why the dyspeptic should use the cereals instead of fine bread; flour made up of the whole grain of oats, rye, wheat, or corn, is very rich in tooth and bone-making material because the outside hull or skin, called the bran, has adhering to it in process of grinding the much larger portion of that element, the mineral, which is necessary to hard, sound teeth, and to keep them hard; and good teeth are as important in their beneficial bearings on digestion as sharp case-knives, named on a previous page. By the following table it will be seen that a bushel of bran weighing twelve pounds has seven times as much mineral matter, lime mainly, as a bushel of the finest, whitest, family flour; and it is this mineral matter out of which the tooth is made and the enamel which covers it. And there can be no doubt that an important cause of dyspepsia, and of its aggravation, is faulty teeth, made thus by the almost universal custom of feeding children on the finest flour from their earliest years, instead of porridge and mush and grits and hominy.

No. II.—TOOTH AND BONE-MAKING MATERIAL.

VEGETABLE FOOD.	POUNDS PER BUSHEL.	NITROGEN.	MINERAL
Fine flour,	56	1.70	0.71
Seconds,	56	1.86	0.99
Sharps,	26	2.40	2.90
Fine pollards,	16	2.43	6.00
Bran,	12	2.40	7.00

If a pound of corn meal, or a pound of human milk, contains a hundred equivalents of nourishment, a pound of rice will have but eighty-one, and a pound of cow's milk two hundred and thirty-seven, thus making cow's milk more than twice as rich as human milk, causing it to be much

TOO RICH FOR THE BABY;

and, to make it poorer, water is added, otherwise the baby would soon be killed, and as the cow's milk is very unequal in its richness, it is important, that if an infant is fed by artificial means, the milk of the same cow should be used. But to know how much to dilute it from time to time as the child increases in age and requires stronger and stronger food—less and less dilution—it requires a closer observation, and a sounder judgment than most nurses have, to prepare the little one's food properly. To its improper preparation may well be attributed much of the dyspepsia of after life; constituting a very strong reason why every mother should nurse her own child, and then Nature, with

her unerring instincts, regulates the richness of its nutrition and adapts it to the varying needs of the system, as no other nurse can do. And since dyspepsia often has its foundation laid in infancy and childhood, it is in the line of this book to throw out the above suggestion, that intelligent and conscientious mothers may have some care to avert a malady which often makes its possessor miserable for the greater part of a lifetime. Possibly the mother, herself a dyspeptic sufferer, may, in pity to her own offspring, feel thankful and happy in having the opportunity afforded of informing herself on the general subject, and having some hints of a practical character for guidance. Some of these have been already given, and for their confirmation, as well as for the opportunity it affords of introducing additional information, it was thought desirable to give word for word an article written by Eustace Smith, M.D., of London, physician to the King of the Belgians, and to several hospitals in the British Metropolis, taken from a second number of the *Sanitary Record*, and copied by *The Sanitarian*, the most ably conducted periodical in America, edited by A. N. Bell, M.D., who, as a sanitarian, has no superior in this country.* The article is on the

* The *Sanitarian*, published monthly at 79 Nassau-street, New York.

HAND-FEEDING OF INFANTS.

And when it is remembered that during a part of the summer of 1875 in New York city a hundred young children died every day, and mostly from looseness of the bowels, the explanation of the cause and mode of eating and remedy brought out in the following extract is of very great importance :

"There are few subjects of greater interest, or of which it is more important, in a sanitary sense, to possess an accurate knowledge than that which relates to the feeding and nurture of infants. Many mothers are unable to nurse their babies, and there is an increasing dislike to transfer maternal duties to a hireling ; consequently the question how best to provide a fitting diet for a being whose digestive powers are feeble and immature, but whose growth and healthy devlopement are dependent upon a suitable supply of nourishment, is one to which it is of the utmost importance to furnish a correct answer.

"The mortality among children under the age of twelve months is enormous, and of these deaths a large proportion might be prevented by a wider

diffusion of knowledge of one of the least difficult of subjects. The rules for the efficient nourishment of infants are plain and simple, and the applicction of them, although requiring tact and judgment, is yet not a matter which ought to occasion any extraordinary embarrassment.

"The great principle at the bottom of all successful feeding—viz., that an infant is nourished in proportion to his power of digesting the food with which he is supplied, and not in proportion to the quantity of nutritive material which he may be induced to swallow—is so obviously true that an apology might almost seem to be required for stating so self-evident a proposition; but experience shows that this simple truth is one which in practice is constantly lost sight of. That that child thrives best who is most largely fed, and that thmore solid the food the greater its nutritive power- are two articles of faith so firmly settled in the minds of many persons, that it is very difficult in, deed to persuade them to the contrary. To them wasting in an infant merely suggests a larger supply of more solid food; every cry means hunger, and must be quieted by an additional meal. To take a common case: A child, weakly perhaps to begin with, is filled with a quantity of solid food which he

has no power of digesting. His stomach and bowels revolt against the burden imposed upon them, and endeavor to get rid of the offending matter by vomiting and diarrhœa; a gastro-intestinal catarrh is set up, which still further reduces the strength; every meal causes a return of the sickness; the bowels are filled with fermenting matter, which excites violent griping pains, so that the child rests neither night nor day; after a longer or shorter time he sinks worn out by pain and exhaustion, and is then said to have died from 'consumption of the bowels.'

"Cases such as the above are but too common, and must be painfully familiar to every physician who has much experience of the diseases of children. When seen sufficiently early, the treatment of the derangement is simple and the improvement immediate, but it unfortunately often happens, especially among the poorer classes, that application for advice is delayed until the child's strength has been reduced to the lowest point, and all our efforts to remedy the mischief may in such cases prove unavailing.

"The disastrous results of ignorant attempts to supply a substitute for human milk have brought the whole practice of hand-feeding into disrepute; but if a food be judiciously selected, with a correct

appreciation of infant wants, and an accurate estimate of infant powers of digestion, there is no reason why a child fed artificially, with judgment, should not thrive as well as one suckled naturally at his mother's breast. The food we select for the diet of an infant should be nutritious in itself, but it should also be given in a form in which the child is capable of digesting it, otherwise we may fill him with food without in any way contributing to his nutrition, and actually starve the body while we load the stomach to repletion. No food can be considered suitable to the requirements of the infant unless it not only possess heat-giving and fat-producing properties, but also contains material to supply the waste of the nitrogeneous tissues; therefore a merely starchy substance, such as arrowroot, which enters so largely into the diet of children, especially among the poor, is a very undesirable food for infants, unless given in very small quantities and mixed largely with milk.

"The most perfect food for children, the only one, indeed, which can be trusted to supply in itself all the necessary elements of nutrition, in the most digestible form, is milk. In it are contained nitrogeneous matter in the curd, fat in the cream, besides sugar, and the salts which are so essential to

perfect nutrition. The milk of different animals varies to a certain extent in the proportion of the several constituents, some containing more curd, others more cream and sugar; but the milk of the cow, which is always readily obtainable, is the one to which recourse is usually had, and when properly prepared this is perfectly efficient for the purpose required. Cow's milk contains a larger proportion of curd and cream, but less sugar, than is found in human milk, and these differences can be immediately remedied by dilution with water and the addition of cane or milk sugar in sufficient quantity to supply the necessary sweetness. But there is another and more important difference between the two fluids which must not be lost sight of. If we take two children, the one fed on cow's milk and water, the other nursed at his mother's breast, and produce vomiting after a meal by friction over the abdomen, we notice a remarkable difference in the matters ejected. In the first case we see the curd of the milk coagulated into a firm, dense lump, while in the second the curd appears in the form of minute flocculent loosely connected granules. The demand made upon the digestive powers in these two cases is very different, and the experiment explains the difficulty often experienced

by infants in digesting cow's milk, however diluted it may be, for the addition of water alone will not hinder the firm clotting of the curd. In order to make such milk perfectly satisfactory as a food for new-born infants, further preparation is required, and there are two ways in which the difficulty may be overcome.

The first method consists in adding an alkali, as lime-water, to the milk. To be of any service, however, the quantity added must be considerable, and one or two teaspoonfull—the adddition usually made to a bottleful of milk and water—is quite insufficient to effect the object desired. Lime-water contains only half a grain of lime to the fluid ounce; of this solution so small a quantity as two teaspoonsfull would be scarcely sufficient even to neutralize the natural acidity of the milk. But it is necessary to do much more than this. Lime water, no doubt, acts by partially neutralizing the gastric juice—the rennet naturally existing in the child's stomach—so that clotting of the curd is in great part prevented, and the milk passes little changed out of the stomach to be fully digested by the intestinal secretion in the bowels. To attain this object at least a third part of the mixture should consist of lime-water. For a new-born in-

fant two tablespoonsfull of milk may be diluted with an equal quantity of plain filtered water, and then be alkalinized by two tablespoonsfull of lime-water. This mixture, of which only a third part is milk, can be sweetened by the addition of a teaspoonful of milk-sugar. If thought desirable a teaspoonful of cream may be added. The whole is then put into a perfectly clean feeding-bottle, and is heated to a temperature of about 95° Fahr. by steeping the bottle in hot water; when warmed it is ready for use. The proportion of milk can be gradually increased as the child gets older.

"There is another plan by which the caseine of cow's milk may be rendered digestible; it is by adding to the milk a small quantity of some thickening substance, such as barley-water, isinglass, or even one of the ordinary farinaceous foods. The action of all of these is the same, and is an entirely mechanical one. The thickening substance separates the particles of curd, so that they cannot run together into a solid lump, but coagulate separately into a multitude of small masses. By this means the curd is made artificially to resemble the naturally light clot of human milk, and is almost as readily digested by the infant.

"Although any thickening matter will have the mechanical effect desired of separating the particles of curd, yet it is not immaterial what substance is chosen. The question of the farinaceous feeding of infants is a very important one, for it is to an excess of this diet that so many of their derangements may often be attributed. Owing to a mistaken notion that such foods are peculiarly light and digestible—a notion so widely prevalent that the phrase "food for infants" has become almost synonymous with farinaceous matter—young babies are often fed as soon as they are born with large quantities of corn-flour or arrow-root, mixed sometimes with milk, but often with water alone. Now, starch, of which all the farinæ so largely consist, is digested principally by the saliva, aided by the secretion from the pancreas, which convert the starch into dextrine and grape-sugar previous to absorption. But the amount of saliva formed in the newborn infant is excessively scanty, and it is not until the fourth month that the secretion becomes fully established. Again, according to the experiments of Korowin of St. Petersburg, the pancreatic juice is almost absent in a child of a month old; even in the second month its secretion is very limited, and has little action upon starch. It is only at

the end of the third month that its action upon starch becomes sufficiently powerful to furnish material for a quantitative estimation of the sugar formed. Therefore, before the age of three months a farinaceous diet is not to be recommended—is even to be strongly deprecated, unless the starchy substance be given with great caution and in very small quantities. If administered recklessly, as it too often is, the food lies undigested in the bowels, ferments, and sets up a state of acid indigestion, which in so young and feeble a being may lead to the most disastrous consequences. In fact, the deaths of many children under two or three months old can often be attributed to no other cause than a purely functional abdominal derangement, excited and maintained by too liberal feeding with farinaceous foods. There is, however, one form of food, which although farinaceous is yet well digested even by young infants, if given in moderate quantities. This is barley water. The starch it contains is small in amount and is held in a state of very fine division. When barley-water is mixed with milk in equal proportions it ensures a fine separation of the curd, and is at the same time a harmless addition to the diet. Isinglass or gelatine, in the proportion of a teaspoonful to the bottleful of milk

and water, may also be made use of, and will be found to answer the purpose well.

"Farinaceous foods, in general, are, as has been said, injurious to young babies, on account of the deficiency during the first months of life of the secretions necessary for the conversion of the starch into the dextrine and grape-sugar—a preliminary process which is indispensable to absorption. If, however, we can make such an addition to the food as will insure the necessary chemical change, farinaceous matter ceases to be injurious. It has been found that by adding to it malt in certain proportions the same change is excited in the starch artificially as is produced naturally by the salivary and pancreatic secretions during the process of digestion. The employment of malt for this purpose was first suggested by Mialhe in a paper read before the French Academy in 1845, and the suggestion was put into practice by Liebig fifteen years later.

"'Liebig's Food for Infants' contains wheat flour, malt, and a little carbonate of potash, and has gained a well-deserved celebrity as a food for babies during the first few months of life. The best form with which I am acquainted is that made by Mr. Mellin under the name of 'Mellin's Extract for pre-

paring Liebig's Food for Infants.' In this preparation, owing to the careful way in which it is manufactured, the whole of the starch is converted into dextrine and grape-sugar, so that the greater part of the work of digestion is performed before the food reaches the stomach of the child. Mixed with equal parts of milk and water, this food is as perfect a substitute for mother's milk as can be produced, and is readily digested by the youngest infants. It very rarely, indeed, happens that it is found to disagree.

"In all cases, then, where a child is brought up by hand, milk should enter largely into his diet, and during the first few months of life he should be fed upon it almost entirely. If he can digest plain milk and water, there is no reason for making any other addition than that of a little milk, sugar, and cream; but in cases where, as often happens, the heavy curd taxes the gastric powers too severely, the milk may be thickened by an equal proportion of thin barley-water, or by adding to each bottleful of milk and water a teaspoonful of isinglass or of 'Mellin's Extract.'

FIRST MONTH.

"Having fixed upon the kind of food which is suitable to the child, we must next be careful that it is

not given in too large quantities, or that the meals are not repeated too frequently. If the stomach be kept constantly overloaded, even with a digestible diet, the effect is almost as injurious as if the child were fed upon a less digestible food in more reasonable quantities. A healthy infant passes the greater part of his time asleep, waking at intervals to take nourishment. These intervals must not be allowed to be too short, and it is a great mistake to accustom the child to take food whenever he cries. From three to four ounces of liquid will be a sufficient quantity during the first six weeks of life; and of this only a half or even a third part should consist of milk, according to the child's powers of digestion. After such a meal the infant should sleep quietly for at least two hours. Fretfulness and irritability in a very young baby almost always indicate indigestion and flatulence; and if a child cries and whines uneasily, twisting about his body and jerking his limbs, a fresh meal given instantly, although it may quiet him for the moment, will after a short time, only increase his discomfort.

TWO MONTHS.

"During the first six weeks or two months, two hours will be a sufficient interval between the meals;

afterwards this interval can be lengthened, and at the same time a larger quantity may be given at each time of feeding. No more food should be prepared at once than is required for the particular meal. The position of the child as he takes food should be half reclining, as when he is applied to his mother's breast, and the food should be given from a feeding-bottle. When the contents of the bottle are exhausted, the child should not be allowed to continue sucking at an empty vessel, as by this means air is swallowed, which might afterwards be a source of great discomfort. The feeding apparatus must be kept perfectly clean. The bottle should be washed out after each meal in water containing a little soda in solution, and must then lie in cold water until again wanted. It is desirable to have two bottles, which can be used alternately.

SIX MONTHS.

"At the age of six months farinaceous food may be given in small quantities with safety, if it be desired to do so; and in some cases the addition of a moderate proportion of wheaten flour to the diet is found to be attended with advantage. The best form in which this can be given is the preparation of wheat known as 'Chapman's entire wheaten

flour.' This is superior for the purpose to the ordinary flour, as it contains the inner husk of the wheat finely ground, and is therefore rich in phosphates and in a peculiar body called cerealin, which has the diastatic property of changing starchy matters into dextrine. This flower should be slowly baked in an oven until it crnmbles into a light greyish powder. At first no more than one teaspoonful should be given once or twice a day, rubbed up (not boiled) with milk. If there be much constipation fine oatmeal may be used instead of the baked flour.

EIGHT MONTHS.

"After the eighth month a little thin mutton or chicken broth or veal tea may be given, carefully freed from all grease. After

TWELVE MONTHS

the child may begin to take light puddings, well-mashed potatoes with gravy, or the lightly boiled yolk of an egg; but no meat should be allowed until the child be at least sixteen months old. Every new article of food should be given cautiously, and in small quantities at first, and any sign of indigestion should be noted, and a return be made at once to a simpler method of feeding.

"During all this time the child should be kept scrupulously clean, and his nursery should be well ventilated and not be kept too hot. He should be washed twice a day from head to foot, once with soap. The air of his bedroom should be kept sweet and pure during the day, and at night, if the weather do not allow of an open window, a lamp placed in the fender will insure of a sufficient exchange of air. The child should pass as much of his time as possible out of doors, and while every care is taken to guard his sensitive body against *sudden* changes of temperature, he must not be covered up with too heavy clothing and shut off from every breath of air for fear of his catching cold. A child ought to lie cool at night, and the furniture of his cot, although sufficiently thick to insure necessary warmth, should not be cumbersome, so as to be a burden. If the above directions are carefully carried out—and the mother should herself see that they are attended to—few cases will be found to present any difficulty in their management."

No III.—NUTRITIVE EQUIVALENTS.

[To read this table aright, it is only necessary to say that, if, in a certain amount of food, there are, in rice, for example, eighty-one equivalents of nutriment, there are in an equal weight of potatoes eighty-four, and so on.]

NAME.	IN DRIED VEGETABLES.	ANIMAL FOOD.
Rice,	81	—
Potatoes,	84	—
Maize, or Indian-corn,	100	—
Rye,	106	—
Radish,	106	—
Wheat,	119	—
Barley,	125	—
Oats,	138	—
Bread, white	142	—
Bread, black	166	—
Peas,	239	—
Lentils,	276	—
Haricots,	283	—
Beans,	320	—
Milk, human	—	100
Milk, cow's	—	237
Eggs, yolk of	—	305
Oysters,	—	305
Cheese,	—	331
Veal,	—	434
Muscle,	—	523
Liver, beef	—	570
Pigeon,	—	756
Mutton,	—	773

In a weak state of the stomach, it cannot have concentrated food, for the more nourishment there is in a given quantity, the more digestive power the stomach must have, and it is the want of this power which constitutes the very essence of dyspeptic diseases; hence, on general principles, the more water any article of food has, the more easily

is it digested. It would not answer for a dyspeptic to eat boiled or baked beans, as any one may know; they have eighty-seven parts of nutriment and only fourteen of water. Professor B. W. Dudley, Professor of Anatomy and Surgery in Transylvania University, at a time when it was the second medical school in the United States, was very fond of recommending to all who were debilitated and required good food to use boiled turnips, only four per cent. of which is nutriment, and ninety-six waste and water. In this connection the following will be examined with considerable interest by the intelligent and investigating.

No. IV.—SOLIDITY AND MATTER OF FOOD.

IN 100 PARTS OF, THERE IS PERCENTAGE OF	SOLID MATTER.	WATER.
Arabic, gum	88	12
Artichokes,	28	80
Apricots,	25	75
Arrowroot,	82	18
Almond oil,	100	—
Butter,	83	17
Bread,	68	32
Beans,	87	14
Blood,	20	80
Beef, fresh	25	75
Beef tea,	2	98
Cabbage,	8	92
Carrots,	12	88
Cherries,	25	75
Cucumbers,	3	97
Candy,	90	10
Egg, white of	20	80
Egg, yolk	46	54
Fish, average,	20	80
Figs,	84	16
Gooseberries,	18	81
Hogs' lard,	100	—
Isinglass,	92	7
Leguminous seeds,	—	—
Lentils,	84	16
Manna,	—	40
Mutton suet,	100	—
Milk of cow,	13	87
Milk of ass,	8	92
Milk of goat,	13	86
Olive oil,	100	—
Oats,	79	21
Oatmeal,	83	7
Oysters,	13	87
Pease,	84	16
Potatoes,	24	76
Peaches,	20	80
Pears,	16	84
Poultry,	23	77
Rye,	83	17
Sugar, average,	—	—
Starch, average,	84	16
Wheat,	86	14

The two following tables, stating the mode of preparation of various articles of food, and the time required for digestion and passing out of the stomach, are precisely alike, only that one is in alphabetical order for convenience of reference and saving time; the other gives the same information in the order of the easiness of digestion, taking it for granted that the facility of change was in proportion to the shortness of time required. They may be relied upon as being the accurate results of active visual observation. As Dr. Beaumont could see into the stomach, and notice what was going on there, he must have done it with a delicious interest. Such opportunity had never before occurred, and been improved, in the whole history of the world, and he must have been conscious of the delight which it would give the scientific mind of all nations to read the result; and there can be no doubt that this consideration, as well as his love for scientific research, and the important bearing it would have on physiological investigation and observation, sustained him in his tedious labor, extending over months and years; and made more difficult, as he informed the writer by letter, on account of the peculiar disposition of the patient, a certain degree of stubbornness, and

occasional addiction to excessive indulgence in strong drink. The same considerations, added to a consciousness on the bearing it would have on human well-being, were well calculated to impress his mind with the importance of the strictest accuracy in his observations and in noting them down.

OBJECT OF EATING.

Children have to eat for four reasons, warmth, growth, strength, and repair; but when they have completed their growth, one of the necessities no longer exists. The young are always ready to eat; can eat all the time, apparently, and with such a delight that it is almost a young heaven to them; and your memories of it often travel backwards over the weary road of sixty and seventy years, and in a measure live it over again with mellowing sadness. How the eyes danced with delighted expectancy, in looking at the apples hanging from the trees in the orchard, the cutting of the luscious watermelon, and the sap of the "skillet" of sixty years agone; the homely ginger cake and dumpling, not forgetting the bread and butter, with sugar on it, provided by the indulgent grandmother. This ever ready appetite of the young is the result of that ceaseless activity observed in

childhood, and which often prompts the impatient exclamation,

"THEY ARE NEVER STILL."

But this constant wanting to do something is an instinctive necessity of childhood, implanted by infinite wisdom as a means of creating an appetite for that large amount of food which is essential to growth, and this same activity is just as important in carrying on the digestion of what has been eaten. Hence compelling children to be still for a moment, against their will, is but a fighting against their natural instincts, which never can be done with impunity. No doubt it would please the weary mother, longing for quiet and repose, to have her half dozen little ones sit around her in stillness and silence, but it would kill them; they would eat, but their food would not be digested, and they would soon fall into wasting diarrhœas and an early grave. It is a thousand times better to have romping, noisy, hilarious, "mischievous" children, than have them pale and silent and sickly; a million times better is it to a loving mother's ear to listen to the ringing laugh than to hear the moan of some painful, eating disease, working its resistless way into the very vitals. Do

not use an iron despotism over your children to school them into the habit of stillness and quiet; if you do, there will, but too soon, be enough of it in the early grave, and then you would be willing and eager to give everything you had in the world to have those noises back again

This apparent digression has been made in part to impress on the reader's mind some of the important elements in the cure of dyspepsia. In proportion as the joyousness of childhood can be brought about, their activities, their perfect delight to be in the open air, in such proportion will the cure of dyspepsia be facilitated; then these things should be aimed at all the time, and ways and means should be constantly devised for bringing them about, and fortunate is he who has determination, ambition, and force of will enough to accomplish the object.

No. V.—DIGESTIBILITY OF FOOD

IN ALPHABETICAL ORDER.

NAME.	MODE OF PREPARATION.	TIME OF DIGESTION. H. M.
Aponeurosis,	Boiled.	3 30
Apples, mellow	Raw.	2 50
Apples, sour, hard	Raw.	2 50
Apples, sweet and mellow	Raw.	1 50
Barley,	Boiled.	2 00
Bass, striped	Broiled.	3 00
Beans, pod	Boiled.	2 30
Beans, with green corn,	Boiled.	3 45
Beef,	Roasted.	3 00
Beefsteak,	Broiled.	3 00
Beef, old, salted,	Boiled.	4 15
Beets,	Boiled.	3 45
Brains, animal	Boiled.	1 45
Bread, corn	Baked.	3 15
Bread, wheat	Baked.	3 30
Butter,	Melted.	3 30
Cabbage,	Raw.	2 30
Cabbage and vinegar,	Raw.	2 00
Cabbage,	Boiled.	4 30
Carrot,	Boiled.	3 15
Cartilage (gristle),	Boiled.	4 15
Catfish,	Fried.	3 30
Cheese, old	Raw.	3 30
Chicken,	Fricasseed.	3 45
Codfish, dry	Boiled.	2 00
Corn cake,	Baked.	3 00
Corn, green, and beans,	Boiled.	3 45
Custard,	Baked.	2 45
Duck, tame	Roasted.	4 00
Duck, wild	Roasted.	4 50
Dumpling, apple	Boiled.	3 00
Eggs, hard	Boiled.	3 30
Eggs, soft	Boiled.	3 00
Eggs,	Fried.	3 30
Eggs,	Roasted.	2 15
Eggs,	Raw.	2 00
Eggs,	Whipped.	1 30
Flounders,	Fried.	2 30
Fowls, roasted or	Boiled.	4 00
Gelatine,	Boiled.	2 30
Goose, wild	Roasted.	2 30
Heart, animal	Fried.	4 00
Lamb,	Boiled.	2 30
Liver,	Boiled.	2 00
Marrow,	Boiled.	2 40

DIGESTIBILITY OF FOOD—CONTINUED.

NAME.	MODE OF PREPARATION.	TIME OF DIGESTION.
		H. M.
Meat and vegetables,	Hashed.	2 30
Milk,	Raw.	2 15
Milk,	Boiled.	2 00
Mutton,	Roast.	3 15
Mutton, broiled or	Boiled.	3 00
Oysters,	Raw.	2 55
Oysters,	Roasted.	3 15
Oysters,	Stewed.	3 30
Parsnips,	Boiled.	2 30
Pig,	Roasted.	2 30
Pigs' feet,	Soused.	1 00
Pork,	Roast.	5 15
Pork,	Boiled.	4 30
Pork, raw or	Fried.	4 15
Pork,	Broiled.	3 15
Pork,	Stewed.	3 00
Potatoes,	Boiled.	3 30
Potatoes,	Baked.	3 30
Potatoes,	Roasted.	2 30
Rice,	Boiled.	1 00
Salmon, fresh	Boiled.	1 45
Sausage,	Fried.	4 00
Soup, barley	Boiled.	1 30
Soup, bean	Boiled.	3 00
Soup, beef and vegetables	Boiled.	4 00
Soup, chicken	Boiled.	3 00
Soup, marrow bones	Boiled.	5 00
Soup, oysters or mutton	Boiled.	3 30
Suet, beef	Boiled.	5 30
Tapioca,	Boiled.	2 00
Tendon,	Boiled.	5 30
Tripe,	Fried.	1 30
Tripe,	Soused.	1 00
Trout and salmon,	Boiled.	1 00
Turkey, boiled or	Roasted.	2 30
Turnips,	Boiled.	3 30
Veal,	Broiled.	4 00
Veal,	Fried.	4 30
Vegetables and meat,	Warmed.	3 30
Venison steak,	Broiled.	1 35

No. VI.—DIGESTIBILITY OF FOOD.

IN ORDER OF TIME.

The following table of the digestibility of the most common articles of food, prepared from standard authorities, is approximately correct, and is of very general practical interest:

QUALITY.	PREPARATION.	TIME OF DIGESTION.
		H. M.
Cole slaw,	—	1 00
Rice,	Boiled.	1 00
Pigs' feet, soused	Boiled.	1 00
Tripe, soused	Boiled.	1 00
Eggs, whipped	Raw.	1 30
Trout, salmon, fresh	Boiled.	1 30
Trout, salmon, fresh	Fried.	1 30
Soup, barley	Boiled.	1 30
Apples, sweet, mellow	Raw.	1 30
Venison steak,	Broiled.	1 35
Brains, animal	Boiled.	1 45
Sago,	Boiled.	1 45
Tapioca,	Boiled.	2 00
Barley,	Boiled.	2 00
Milk,	Boiled.	2 00
Liver, beef's, fresh	Broiled.	2 00
Eggs, fresh	Raw.	2 00
Codfish, cured dry	Boiled.	2 00
Apples, sour, mellow	Raw.	2 00
Cabbage, with vinegar,	Raw.	2 00
Milk,	Raw.	2 00
Eggs, fresh	Roasted.	2 15
Turkey, wild	Roasted.	2 15
Turkey, domestic	Boiled.	2 18
Gelatine,	Boiled.	2 25
Turkey, domestic	Roasted.	2 25
Goose, wild	Roasted.	2 30
Pig, sucking	Roasted.	2 30
Lamb, fresh	Broiled.	2 30
Hash, meat and vegetables,	Warmed.	2 30
Beans, pod	Boiled.	2 30
Cake, sponge	Baked.	2 30
Parsnips,	Boiled.	2 30
Potatoes, Irish	Roasted.	2 30
Cabbage, head	Raw.	2 30

DIGESTIBILITY OF FOOD—CONTINUED

QUALITY.	PREPARATION.	TIME OF DIGESTION.
		H. M.
Spinal marrow, animal	Boiled.	2 40
Chicken, full grown	Fricasseed.	2 45
Custard,	Baked.	2 45
Beef, with salt only,	Boiled.	2 45
Apples, sour, hard	Raw.	2 50
Oysters, fresh	Raw.	2 55
Eggs, fresh	Soft boiled.	3 00
Bass, striped, fresh	Broiled.	3 00
Beef, fresh, lean, rare	Roasted.	3 00
Pork, recently salted,	Stewed.	3 00
Mutton, fresh	Broiled.	3 00
Soup,	Boiled.	3 00
Chicken soup,	Boiled.	3 00
Aponeurosis,	Boiled.	3 00
Dumpling, apple	Boiled.	3 00
Cake, corn	Baked.	3 00
Oysters, fresh	Roasted.	3 00
Pork Steak.	Broiled.	3 15
Mutton, fresh	Roasted.	3 15
Bread, Corn	Baked.	3 15
Carrot, orange	Boiled.	3 15
Sausage, fresh	Broiled.	3 15
Flounder, fresh	Fried.	3 30
Catfish, fresh	Fried.	3 30
Oysters, fresh	Stewed.	3 30
Butter,	Melted.	3 30
Cheese, old, strong,	Raw.	3 30
Soup, mutton	Boiled	3 30
Oyster soup,	Boiled.	3 30
Bread wheat, fresh	Baked.	3 30
Turnip's, flat	Boiled.	3 30
Potatoes, Irish	Boiled.	3 30
Eggs, fresh	Hard boiled.	3 30
Green corn & beans,	Boiled.	3 45
Beets,	Boiled.	3 45
Salmon, salted,	Boiled.	4 00
Beef,	Fried.	4 00
Veal, fresh	Broiled.	4 00

No. VII.—ELEMENTS OF FOOD.

The ultimate ingredients of all food are carbon to warm, and nitrogen to make flesh. Some have no carbon, others no nitrogen; some have both in varying proportions; all have water or waste from five to ninety per cent. The table on p. 178 is the result of the researches of the ablest chemists of the age. The amount of solid matter in an article of food does not mean that amount of nutriment; for a portion of it may be woody fibre, or waste, or lime, chalk, iron, or other mineral. The cipher indicates that not one per cent. of the element is found; n. a., not ascertained; blanks mean no published or reliable statements have been made. The more water, the more waste; for even woody fibre and iron have their essential uses in the system. This and other food tables in this volume should be regarded as merely approximative; they are not so much intended to live by as for guidance in diseased conditions. For example, if constipated, it is better to use rough food, such as has much waste and little nutriment, as fruits, berries, and the like; concentrated food, as boiled rice, is best for loose bowels; sirups, and oils, and milk

cause biliousness and fevers; sours, as berries, fruits, and cole slaw, cure fevers. It is safer, however, especially in health, to eat by instinct rather than by rules or scientific tables.

IN 100 PARTS OF, THERE IS PERCENTAGE OF	SOLID MATTER.	WATER.	CARBON.	NITROGEN
Arabic, gum	88	12	36	—
Artichokes,	28	80	9	—
Apricots,	25	75	—	n.a.
Arrowroot,	82	18	36	n.a.
Almond oil,	100	—	77	—
Butter,	83	17	66	n.a.
Bread,	68	32	31	n.a.
Beans,	87	14	38	n.a.
Blood,	20	80	10	3
Beef, fresh	25	75	10	8
Beef tea,	2	98	—	n.a.
Cabbage,	8	92	—	—
Carrots,	12	88	—	—
Cherries,	25	75	—	—
Cucumbers,	3	97	—	—
Candy,	90	10	43	—
Egg, white of	20	80	—	—
Egg, yolk	46	54	—	—
Fish, average,	20	80	—	—
Figs,	84	16	—	—
Gooseberries,	18	81	—	—
Hogs' lard,	100	—	79	—
Isinglass,	92	7	—	—
Leguminous seeds,	—	—	37	—
Lentils,	84	16	37	—
Manna,	—	40	—	—
Mutton suet,	100	—	70	—
Milk of cow,	13	87	—	—
Milk of ass,	8	92	—	—
Milk of goat,	13	86	—	—
Olive oil,	100	—	77	—
Oats,	79	21	40	2
Oatmeal,	93	7	—	—
Oysters,	13	87	36	—
Pease,	84	16	—	—
Potatoes,	24	76	11	—
Peaches,	20	80	—	—
Pears,	16	84	—	—
Poultry,	23	77	—	—
Rye,	83	17	39	2
Sugar, average	—	—	42	—
Starch, average	84	16	36	—
Wheat,	86	14	39	2

HOW MUCH TO EAT.

Whether a man shall eat two pounds of food every twenty-four hours depends upon age, occupation, constitution and temperament. In any hundred men or women, there would not be any five alike. There is only one rule or principle to be applied to all. A man must eat at least enough to keep up his strength and flesh; he requires that, no less and no more.

In public institutions it would be impracticable to ascertain and then measure out the amount of food and drink required for each; hence the plan has been adopted of giving to each a liberal allowance, and if he can live comfortably on less, he can sell the overplus; this is a common method of dealing with soldiers.

The army ration of food in the United States is forty ounces of solid food and five pints of coffee. This is larger than in European armies.

The average amount of food required every day for a healthy working man is three-quarters of a pound of beef, a pound and a quarter of bread, and half an ounce of butter, or thirty-two and a half ounces of solid food a day.

Dr. Dalton, an eminent American physiologist, found a healthy workman in the open air required every day one pound of meat, a pound and three ounces of bread, and three and a half ounces of butter, and three and a half pounds of water, or six pounds and a quarter of food and drink.

Dr. Hammond found that a man maintained his exact weight by taking every day—

16 ounces of meat,
18 ounces of bread,
4 ounces of beets,
1 ounce of butter,

39 ounces of solid food;
6 ounces of soup,
48 ounces of water,
10 ounces of coffee,

64 ounces of fluids;

103 ounces of solids and fluids,

or six and a half pounds of food and drink, lacking one ounce, showing how much the stomach has to work up every day. The restless mind of the physiologist has computed how much strength this amount of food gives a man, expressed by "foot pounds," instead of the old indefinite designation of horse power, meaning by the strength thus expressed, that when this food is oxidized, it gives out an amount of heat which, if applied as in a steam engine, would raise a body weighing four-

teen millions of pounds one foot every day. But all this power is not available in the human body, in this direction; there is not that much power or strength to move fourteen millions of stones one foot high; only three and a half million pounds are available. There is an apparent loss of about three-fourths, but no machine has ever been contrived that will lose as little. It seems as clear a loss as that of an open fire, where three-fourths of the heat escapes up the chimney, with no other advantage than warming all out doors. The remainder of this force is expended in every motion in the body, the step of the foot, the work of the finger, the wink of the eye, the very thought of the brain, the very least of which requires an additional amount of blood to be pumped out of the heart and lungs into the head, in order to supply force for the next thought or process of mental operation. Then there is the immense labor of the busy beating heart, which in the pilgrimage of three score years and ten thumps three thousand millions of times without a stop, and each beat represents a force of thirteen pounds.

From these statements it is clear that no rule can be laid down for the dyspeptic, except the general one to eat very slowly and in a pleasant

frame of mind, just as much as will leave him in a feeling of perfect comfort; this is the true luxury of eating.

If a person eats with an anxious or troubled mind, or while feeling hurried, or if he is so engrossed that his mind is elsewhere, he will have eaten too much before he is aware of it, and having swallowed his food mechanically, the due amount of saliva has not been carried down and mixed with it, the result being an unnatural thirst which, if gratified, even with cold water, occasions the fulness and oppression and general uncomfortableness which always attends satiety, or as applied to animals,

FOUNDERING.

A beneficent Providence has made nutriment a constituent of an immense variety of vegetable growths, and these are more or less nutritious according to latitude and other varying circumstances.

Sugar or its equivalent is an essential element of human nutrition, and there seems to be more or less of it in almost every thing that springs from the ground in the shape of food.

As a very general rule the dyspeptic should avoid concentrated food, that which has a large

proportion of food in a small bulk, and but little waste, as exemplified in one of the food tables. The common white bean has ninety-five per cent. of nutriment and only five per cent. of waste; the common potato from seventy to eighty per cent. of waste; the cabbage seven; and the homely turnip four; but in the wise economy of nature even this waste answers necessary purposes, enticing the eater away from too concentrated articles, which, if persisted in, would induce a diseased stomach, and which also bear an important part of distension at the extremity of the alimentary canal which, without expense or trouble, answers the purpose of an injection, thus preventing constipated habits of body, which would undermine the very strongest constitution sooner or later.

This general observation should be borne in mind by all dyspeptics: that while meats cut up in very small pieces, as in mince, will be rapidly dissolved in the human stomach, even if swallowed hastily, such is not the case with vegetables, for, however small they may be divided, they require for their solution a large proportion of saliva, which can only be obtained by the process of deliberate and continued chewing.

It follows from the above statements that if the dyspeptic is inclined to costiveness, he should give preference to vegetable food, especially that which has but a moderate amount of nutriment and a large amount of waste, as previously mentioned; if not troubled in that way, and the natural functions are performed every day, meats may be more indulged in, because while they are more nutritious they are converted into a condition of opposing nutriment to the body, with a less amount of digestive power, and the more that power is suspended, is unnecessarily exercised, the better.

RECAPITULATION.

It is thus seen that dyspepsia and indigestion mean one and the same thing: essentially an inability of the stomach to convert the food introduced into it into healthful nutriment; the idea being better conveyed to the mind of the general reader by saying that dyspepsia is

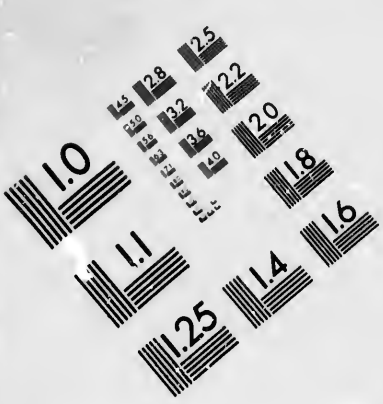
A WEAK STOMACH;

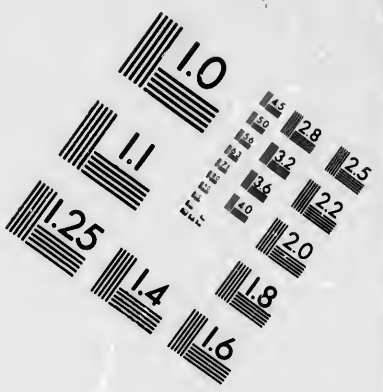
a stomach not strong enough to dissolve the food healthfully.

This dyspeptic condition of the stomach is most generally brought on by

Eating too often;
Eating too fast;
Eating too much;
Eating without an appetite.

By eating too often, that is, at shorter intervals than about five hours, three times in the twenty-four, the stomach is kept so constantly at work, that its strength becomes exhausted so that it cannot convert the food into a condition suitable to its imparting nutriment to the body.





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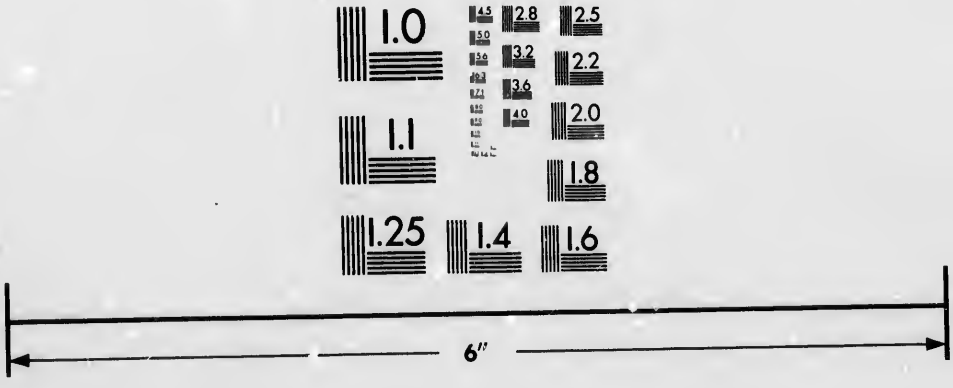

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By eating too fast, the stomach is over-filled before one knows it, and with such large lumps of food, that before they can be dissolved by the gastric juice, they begin to decompose, becomes acid, and in other ways, wholly unfit for the healthful purposes of the body.

By eating too much, the stomach fails to get through its work well, and although the food may be all dissolved and digested, none of it is done well enough for purposes of healthful nutriment.

By eating without an appetite, the food is introduced into the stomach without there being an adequate amount of gastric juice to dissolve the aliment, the presence of this gastric juice being the cause of appetite. There are cases in ordinary diseases when the patient fails and death ensues, not from the effects of the sickness, for that may have been cured, but from want of strength to recover from the effects of the malady. It is meant that the rule of not eating without an appetite, should generally apply to dyspeptics, at least for a meal or two, and if there is still no inclination to eat, the appetite may be invited by something savory, as a bunch of fresh, luscious grapes, or a baked potato with butter and salt and pepper, or a shaving of dried beef; these being passed into the

stomach and carried around its sides stimulates or healthfully affects the parts so as to cause them to pour out some of the reserves of gastric juice, and the appetite returns. It often happens that a person sits down to table with no inclination whatever to eat a particle, and yet by nibbling first at this and then at that, he finds that by the time he leaves the table he has made a pretty good meal for one, who, a few moments before, had no appetite; but this is tempting nature, and is a bad practice.

There are other causes of dyspepsia, more or less frequent, and more or less direct, but the four named are so generally and so directly the means by which this annoying disease is brought on, that it is not specially necessary to enumerate other causes.

It will be seen that the effect of each one, and of all the four causes named, is one and the same:

Imperfect digestion;
Imperfect nutrition;
Imperfect blood;
Imperfect health.

This imperfect health manifests itself by symptoms, or signs, or indications,

Unusual,
Unnatural, and
Uncomfortable feelings.

These feelings generally draw the attention unpleasantly to the region of the stomach or bottom of the throat or neck, or in the mouth, in the form of

A BAD TASTE,

especially in the morning, when first getting up.

When a person has, for a considerable time, noticed these symptoms of dyspepsia, and they disappear for days or weeks or months, and some other symptom manifests itself in some other part of the body, it is unwise and utterly useless, and a perilous loss of time, to apply local remedies or general internal means for the removal of the discomfort from that part; because the disease is not located there, but in the stomach, a foot or two or more away. These local or general means sometimes alleviate and even remove the symptom; but it is always a mere temporary relief, and never, by any possible means, a radical remedy; hence it is but a

SILLY TRIFLING

with the well-being of the body, and a waste of means, and time, and effort.

Sometimes a dyspeptic stomach does not complain itself; and when the applicant for medical relief is asked if he has ever noticed any ill-feeling about the stomach, he answers quickly, promptly, and confidently

"NEVER."

But the skilful physician, by a thorough examination of the case will find in the appearance of the tongue, feel of the pulse, or color of the skin, or temperature of the surface, or in the condition of the functional workings of the system, that it is a form of

MASKED DYSPEPSIA:

that it is the bad blood of dyspepsia manifesting itself in the bringing back of some almost forgotten pain, or in some form of neuralgia, or sick headache, or rheumatism, or nausea, or irregular bowels, cold feet, chilly body, weak nerves, great susceptibility to colds, or other symptoms associated with certain mental and moral conditions of the applicant, which point conclusively to the fact, that the real cause of the things complained of is in the stomach; and that to it, and it alone, should remedial means be directed, to authorize any rational hope of alleviation, arrest, and permanent cure.

As the disease is weakness of stomach, inability, want of strength to perform its work properly, the first step is that which should be taken with an over-worked man; give him less to do, give him easier work; work which can be done in a shorter time, thus affording longer periods of rest, repose, and sleep, and this is done in reference to the stomach by giving it

Regular work;

Easy work;

Plain work;

Regular work by eating at stated hours and no other;

Easy work by using food which is known to be digested with rapidity and facility.

Plain work, by taking but a few articles at any one regular meal, and such as are more nearly allied to the nature of blood, as fresh meats; and those which have a tendency to purify the blood, as fruits and berries in their ripe, natural, and raw states, taken before meals, so that their grateful and health-giving juices may be absorbed into the circulation, in their purity and healthfulness, without admixture of other things; and the whole grain of cereals, whether oats, corn, wheat, rye, or barley, so as to serve those mineral constituents,

which are so necessary to give strength to the bones, vigor to the muscles, and life to the blood.

In using fresh meats, care is to be given in cutting them up in pea-sized pieces, so that they may be more speedily dissolved by the gastric juices; but inasmuch as the fluids which are essential to the proper dissolution of vegetable food, all are stored up in the mouth and the sides of the of cheeks, and are only disengaged by the process chewing, all vegetable food should be chewed slowly, and with great deliberation, however finely cut up in the beginning.

In order to fortify the reason and convince the judgment of the reader that fresh meats are more easily assimilated to the blood than vegetables, the reason is here given and is found in the fact, that the ultimate principles of nutrition in food are found in the metals of the earth, its lime and iron, and others; that the first step . . the process of conversion, is the digestion, the dissolution, the chemical disintegration of the lime and the iron and other constituents of the soil, which is performed by the continued action of the water in the soil and the juices of the vegetable; they dissolve the metals as the gastric juice dissolves meat. After the separation of their elements into gaseous and

fluid forms the vegetable takes them into itself, appropriates them into its own substance; and having performed a work, the decomposition of a metal which no animal stomach could do, this vegetable in the shape of grass and hay and oats and corn and the like is eaten by the sturdy ox, whose strong stomach again separates the constituent parts, and then appropriates them to the making of its own flesh and blood, coming upon our tables in the form of sweet beef, so nearly allied to our own flesh and blood that it is easily converted into the same, so that the very iron and lime which first gave nourishment and life and growth to the plant are introduced in modified forms into the animal, to give it a higher life through the operation of its powerful alembics, to be in turn transferred into the stomach of man, to build up his strength, to feed his brain a still higher form of life; as much higher and nobler as the life of the strong ox and the beautiful bird is higher and nobler than that of the grass of the field, or the tree of the forest.

Different kinds of food are composed of different elements, in varying proportions, all of which are needed by the body; if any one or two kinds are eaten for a long time, except the few which con-

tain all the elements of human nutrition, as bread and milk, and, perhaps, one or two others, the system becomes fully supplied with the particular element, and instinct, that mysterious and wonderful agent of divinity, comes to the rescue and takes away the appetite for it. We express the idea by exclaiming, "We are

"SICK AND TIRED OF IT."

An illustration: A British nobleman had a trusty and highly valued coachman who had lived with him many years, and had always seemed not only satisfied with his position, but proud of it. One day, however, he appeared before his master, and made the announcement that he wished to change and go elsewhere. The nobleman quietly asked him the reason for wishing to leave him. He replied, that the family always had abundance of roast turkey on the table, and the servants never had any.

"Is that all, John? you shall have all the roast turkey you want," and calling the cook, gave orders to give John roast turkey three times every day until further orders, and nothing else but roast turkey, and John was happy. It was not long before the coachman called upon his master with a rueful countenance, and very humbly, and even

abjectly, besought him to have a change ordered, for he never wanted to see a roast turkey again

"AS LONG AS HE LIVED."

This intolerance of the continued use of the same article of diet extends also to drinks, even cold water has a metalic or brassy taste when you have taken enough to satisfy thirst, and it requires a considerable effort to continue drinking it.

MILK CURE.

It has been found that some of the most severe and even dangerous diseases disappear under the exclusive use of sweet milk; nothing else whatever, fluid or solid, to be taken into the stomach, and yet to some, the effort to swallow it, after a few days, becomes such that although improving every hour, they prefer to run the risk of losing life, than be confined to milk alone for aliment.

CURE FOR DRUNKENNESS.

It has been known for many years that some persons are cured of their love for ardent spirits by allowing them, after

A SPREE

or debauch, to take no drink except that on which they became intoxicated, and to allow them not a

particle of food until it has been saturated or worked in the same form of alcohol. His appeals for something else become so piteous, and the drink and even smell becomes so nauseous, that the very sight of it is

AN ABHORRENCE.

In Norway and Sweden this method is said to have been adopted as a means of punishing criminals of a certain grade in these countries. Habitual intoxication is punished by imprisonment.

From the moment when the delinquent is incarcerated he has no other nourishment than bread and wine, morning and evening; but the bread is not served out to him until it has been steeped in wine for an hour. On the first day the drunkard swallows his portion gaily enough; on the second it is less palatable, and he soon receives it with the utmost repulsion. In general, eight or ten days of this diet brings about such utter nausea that prisoners have been known to abstain wholly from the nourishment which is pitilessly offered them. The process once terminated, the toper, with but rare exceptions, is radically cured.

Hence, as dyspeptics must have strength, and that can come from no other source than food and drink, and that cannot be taken without variety,

an important point will be gained in any given case by avoiding sameness of diet in any two successive meals.

THE FOOD CURE.

It will be often found that however palatable and digestible a particular kind of food may be, the time will come when the patient will lose his relish for it, will get tired of it, and if persisted in, nature will send an imperative message in the way of a symptom, weight, or nausea, or heaviness, or acidity, or an unconquerable aversion to that particular article; hence, on the first indication in any of these ways, that the system is fully supplied with a particular element, some other article of food should be selected, the general rule being, never eat any thing for which there is not a relish; although it does not follow, that every thing relished should be eaten, because it may not be digestible, may not

AGREE WITH THE STOMACH;

that more or less of discomfort will follow its use as food, and that in a very short time, sometimes, in ten or fifteen minutes. The stomach may grow tired of even so luscious an article as a bunch of fresh, ripe grapes; when that is the case, take some

other kind of fruit for a few days or a week or two; or it may be the same with oatmeal, stirabout, or wheaten grits, or even fresh roast beef, or porter house steak, or mutton chops, and even poultry may become distasteful and clog on the stomach; then, by all means, change to something else.

As persons are getting better of their dyspepsia in the use of the few articles proposed, there is a very natural desire for something else, something new and more inviting; this desire may be gratified, yet it will happen sometimes that this new article, although very much relished, does not seem to agree with the stomach, and occasions discomfort, but do not discard it altogether; for having been very much liked, too much may have been eaten, so take less the next meal, and the next, and often it will be found that a small amount is well taken care of, when a larger was injurious. But at any time when the steady improvement is interfered with, under a particular line of diet, go back to first principles, to the grapes and the porridge, thus being constantly on the watch; exercising a good judgment and a close observation, with a reasonable amount of self denial and moral courage, ultimate and complete success may be calculated upon, in a very great majority of cases, and even

in cases of failure the modification of suffering will abundantly compensate for any trouble in carrying out the general plan of treatment.

DRINKING AT MEALS

was stated to be injurious to the dyspeptic, because by diluting the gastric juice it weakened its power for dissolving the food, but also because persons would eat less and the process of digestion would be instantaneously arrested, if the fluid were cold. But there are times when a cup of hot tea of any kind would be very benefical, as when sitting down to a meal in a tired or chilly condition. Many dyspeptics find that cold water does not agree with them, that a cup of tea sours on the stomach, and yet they may be distressingly thirsty, and if they drink much of anything it

"BLOATS THEM UP."

Under such circumstances the thirst is completely satisfied by chewing lumps of ice freely and swallowing them in as large bits as practicable. This is the best method in cases of fever; and safer far, when persons are in perfect health, than a large and hurried drink of cold water. A while ago reference was made to the fact that six or seven pounds of

food and drink were taken into the stomach every twenty-four hours on an average—of which three-fourths in weight and bulk are water; for a large part of the solid food is but water, one third of bread is water, three-fourths of roast beef are water, four-fifths of fish are water, more than nine-tenths of cabbage, turnips, and fruits are water. It is the water which lubricates all the joints of the body to make them work smoothly; it is the water which enables the five hundred muscles of the body which are in constant friction with each other, to perform their various offices with comfort to ourselves; without its lubricating influences every step taken would be in agony—witness the tortures of rheumatism. We could not even wink the eye without pain, if there was no bland fluid covering the eye-ball always, to enable the eye-lash to move over it with facility. But the dyspeptic gets enough of this with the food he eats, and in satisfying the thirst between meals without taking it as it comes from the spring or in the form of teas while eating; although, as has been already stated, it is better to drink something hot at meals, if the person is chilly, or very tired, to warm the blood, wake up the circulation and refresh the system generally. Persons attribute this refreshment to the teas of China, black, green,

&c., and they do have a stimulating effect; at the same time it is the fact that the fluid drank is hot; which to a considerable extent, at least, imparts vivacity to the tired body. But in ordinary life in health, and more especially in disease, and particularly in dyspepsia, it would be far better to adopt the method of good French nurses, who rely greatly on

PTISANS,

which are teas made of very many garden herbs, sage, thyme, and others, or sassafras, and the barks and roots of many things which grow in the gardens, fields, and forest; for all these have a taste which gives them a relish, and makes it possible to drink considerable quantities with comfort. Hot water itself would answer a good purpose as far as its warming influences extend, but the drinking it is unpalatable and even nauseating.

We are so familar with tea, black and green, that it is generally thought that nothing could be safer for the dyspeptic—that tea and toast, for example, make one of the mildest repasts in nature, but most dyspeptics will be kept awake half the night on a supper of

TEA AND TOAST,

however nicely made. Toasted bread, as generally placed on our tables, is very indigestible, and tea, in very many cases of dyspepsia, even a few sips of it, makes the stomach acid; hence it is well to discard it altogether; make no experiments with it, or coffee either, but when a hot drink is needed at meals, or between them—when there is much thirst—the plain

HERB TEA

of our foremothers is a delightful and valuable drink for all sickly and weakly persons, especially the dyspeptic.

The uses of water in the system are indispensable, and the dyspeptic should fully understand its importance in furthering his restoration to good health in connection with perspiration and exercise. It is the perspiration which keeps the skin soft and prevents fever by carrying off its extra heat. Hence when the skin is dry it is apt to be hot. Under such circumstances no one can feel well; hence perspiration should be invited by moderate exercise in the open air. It is not important, nor is it desirable, that this exercise should be taken to

the extent of causing what we term sweating, where drops are seen on the surface. The more healthful form is termed by physicians

INSENSIBLE PERSPIRATION,

not visible to the senses, just enough to keep the skin soft, which prevents the heat in fever and the harshness, the

GOOSE FLESH

in cold or chilliness; hence, whether in winter or summer, exercise or work, to the extent of keeping the skin soft and moist, like that of

A BABY,

for several hours every day in the open air, will be of incalculable benefit to every person suffering from dyspepsia; and all such should feel that a day has been lost which has been allowed to pass without exercise in the open air sufficient to cause a little moisture on the surface. And just here comes in

THE GRAPE CURE,

as practised among the thoughtful German physicians; and there is an amount of wisdom in it which will afford an intelligent dyspeptic food for instruction and amusement as well.

Physicians on the continent are averse to giving medicine; they greatly prefer

GOOD NURSING.

They use, as before stated, herb teas and frictions and fomentations and out door exercise and mental diversion and change, and these last three are especially brought into requisition in carrying out the grape cure. These establishments are patronized by the nobility, and persons of wealth and leisure, who have nothing much to do, except to eat and drink, and the most of whose ailments are connected with

PLETHORA.

They have an over-fulness of blood, in consequence of eating too much and exercising too little, resulting in a feeble circulation and a general dulness of feeling, which they seek to overcome by drinking wine and beer, which in the end serve to aggravate and fix the very ailments and discomforts which they were taken to overcome or remove. In going to their gardens and places of amusement and public resort, the exclamation comes to the lips of an American, why they do nothing but drink —the Scotchman his whisky, the English their gin; the French revel in their wine, while all Ger-

mans glory in beer, which they can, sitting around a table, drink and enjoy all day and all night, until the system becomes deranged in every part of it, and then they hie off to some

"CURE"

in Switzerland or Germany. There are the

MOLKEN CURE

of quaint and delightful old Heidelbergh; the bath cures of the warm springs; the mud cure, where persons loll for hours in mud, only their chins above it; but the grape cure is becoming more and more the favorite, as it is

EASY TO TAKE,

and the medicine does not cost much, four or five cents a pound and even less. The general method is as follows: In the first place the situation is selected which is as near

A PARADISE

as possible, as far as scenery is concerned—mountain and lake, river and plain, field and forest, with their splendid drives and lonely, shaded walks, in the valley, up the mountain sides, over the plain

and through the forest, with cosy seats, under shady trees, for rest and conversation, or at a bubling spring, or beside a quiet lake, or ripling rivulet, or along the public promenade. All this is to secure pure air, and present every inducement possible to invite the invalid out of the house. If not by these, there are facilities for boating and rowing, for rides and drives, on some new road, for every day in the month. This gives variety and prevents the mind from stagnation. With these advantages comes the grape cure, which begins by taking a quarter or a half pound before the regular meals, gradually increasing the amount. But these grapes are to be taken, not sitting down at a splendidly appointed table—nor is a whole bunch to be swallowed at once, as the average American would do, to

GET THROUGH WITH IT;

nor must he have them sent up to his solitary chamber, to be devoured in

SILENCE, ENNUI AND SOLITUDE.

It is essential that they be eaten out of doors, and, if possible, in the sunshine, with all its brightning influences.

Nor are the grapes to be eaten while sitting in a chair with elevated feet, nor while lounging on a sofa. The man must eat them while walking, not with solitary steps and slow. He must have some one to talk and laugh with, to make remarks, to get up a dispute, and wake up the mind. Besides all this, it is not thought to be of special advantage to eat a peck in five minutes; one grape is to be picked from the bunch and carried to the mouth at a time, not to be swallowed whole, for then it would not be tasted. It is important to invite out the various juices of the mouth by deliberate chewing, so that by mingling them with the substance of the grape a rapid digestion is promoted, and the essence of the grape, with its

VARIOUS VIRTUES,

is conveyed at once into the circulation. It is an injunction not to come home until all the grapes are eaten, the result being that by the time a pound or so of grapes are eaten, and only one at once, a pretty long walk and a pretty good exposure to out door air and the cheery sunshine has been secured, and this three times a day, in lively company and

DELIGHTFUL SURROUNDINGS.

But with wonderful unselfishness, the doctor advises, although you have been paying pretty well for his advise and for splendid tables spread with costly viands and luxurious beds; he comes to you at the end of two or three weeks or a month, and says you had better leave! Not that your are cured perfectly, not that he is tired of you, but that there are peculiar advantages at another "cure," not to be found at his, a kind of supplemental necessity for winding up the whole business. The real object being, that inasmuch as you have seen everything that is to be seen at his establishment, you must not be allowed to fall into indifference, listlessness and

ENNUI,

but go to some other place where everything is new; new fields, new scenery, new associations; and thus is an army of invalids and dyspeptics kept wandering around from pillar to post all summer, and in the autumn they return home well, from constant out door exposure to the open air involving a large amount of muscular activities and mental exhileration. Double that amount of exercise, double that amount of exposure to the sun-

shine, and breathing the delicious pure air would not have done one tenth part of the good if brought about by riding or walking any number of miles to a post, and then turning around to come back again; vain Americans would rather have a dozen dyspepsias than

ENDURE THAT BORE,

the bore of an unending routine, of an insufferable sameness.

It is said to be a poor rule which does not work both ways; you have been cured, and the grape cure doctor has been paid; you have paid him for the grapes and you have paid him for his

SPLENDID TABLE,

richly spread with costly viands, what there was of them; the game, the pastries, the viands, and the wines; but it has not perhaps occurred to most astute readers, up to this time, that as costly as was the table spread you ate little or nothing of it, and that some tables would last a year, because you had been so completly stuffed with grapes by the time you had taken a pound or two or three that there was not a particle of room for anything else, and all that you did day after day,

on sitting down to the regular meals, was to nibble at this, that and the other, all the while counting the minutes, or scanning the clock, for the time to come, when it would be polite to get up and go away. As for your leaving the establishment and go elsewhere, it was no loss to the landlord, for some brother doctor had already sent some one from his place to fill your vacancy.

But there is wisdom and good management and a careful consideration of your best interests in all this; especially in the case of a dyspeptic, who always eats too much of solid food, and although always eating, is always hungry and never gets enough, because so much was put into the stomach that it could not be digested, but in the case of grapes, however full the stomach might be, nine-tenths was water and the other tenth was worked up in healthful nutriment, making a pure blood, giving substantial strength and thus laying the foundation for a radical cure.

But the reader should not cease to remember his obligation to his physician in making his

CURE EASY.

The dyspeptic has an insatiable appetite, the torment of a sense of hunger being almost always

present, but the stomach being filled with grapes, the sense of hunger was stayed by what physicians call the "stimulus of distension," brought about by eating six, eight or ten pounds of grapes a day, a feat which is frequently performed by enthuiastic experiments in the grape cure.

OATMEAL DIET.

As an encouragement to the dyspeptic to cultivate an appetite, and taste, and relish for oatmeal porridge, as a means of giving strength to bone and developement to muscle, and as has been previously stated, durability and beauty to the teeth, and consequent efficiency to the comminution of food as a means of preparing it for a more easy digestion, it will be well to bear in mind that the highest modern authority, Liebig, has shown that oatmeal is almost as nutritious as the very best English beef, and that it is richer than wheaten bread in the elements that go to form bone and muscle. Prof. Forbes, of Edinburgh, during some twenty years, measured the breath and height, and also tested the strength of both the arms and limbs of the students in the university—a very numerous class, and of various nationalities, drawn to Edin-

burgh by the fame of his teaching. He found that in height, breadth of chest and shoulders, and strength of arms and lions, the Belgians were at the bottom of the list; a little above them, the French; very much higher, the English; and highest of all, the Scotch, and Scotch-Irish from Ulster, who, like the natives of Scotland, are fed in their early years with at least one meal a day of good oatmeal porridge. Speaking of oatmeal, an exchange remarks that a very good drink is made by putting about two spoonfuls of the meal into a tumbler of water. The Western hunters and trappers consider it the best of drinks, as it is at once nourishing, unstimulating, and satisfying. It is also known that such a draught after dressing in the morning, if persisted in, has an admirable efficacy in many cases in overcoming a tendency to an unnaturally slow movement of the bowels, and often overcomes costiveness: thus not only imparting substantial nourishment to the system, but removing the necessity of employing medicine as an agent in that direction. The next best substitute is wheaten grits; in either case, breakfast should be made of these articles alone, with an occasional tea-cup of milk, fresh, sweet, and warmed, not boiled, for that process seems to deprive it of some

of its valuable natural qualities, and makes it less easy of digestion to the adult stomach. Milk, fresh and warm, is the natural food of the infant, its stomach is adapted to it, and will digest it with rapidity, but that it is not a natural aliment for persons who are older may be inferred from the fact that nature dries up the fountain before a year in animals and before two years in women, and that it is not healthful, at least to those who are not hard workers, as mechanics and out-door laborers, every innated or sedentary person may prize to his fullest satisfaction, and using rich, fresh sweet sweet milk freely at each meal for a very few days. It is a frequent and voluntary observation of persons seeking medical advice, "Milk does not agree with me." On making more minute inquiries as to the meaning, reply is made, "It makes me bilious." "It makes me costive." "It gives me the headache." "It sours on my stomach."

At the same time, it may be true, as has been recently claimed for milk, and what has been already referred to, that it has valuable seminal qualities; and this seems to have been confirmed by high medical authority. Besides, there may be peculiarities and combinations in a given case which an article of food might remedy, but which, in nine

cases out of ten others, would aggravate the dyspeptic. For example, a case is given of a lady who drank a tumbler of fresh, sweet milk whenever she experienced a burning sensation in the stomach; but if, in any case, this "milk cure" becomes a habitual thing, it is quite apparent that it is only an alleviant, eradicates nothing, hence is

WORSE THAN WORTHLESS.

Another case is given of an elderly gentleman who had been afflicted for many years with great

DISTRESS AFTER EATING,

but cured himself by drinking half a glass of water, into which had been stirred a teaspoonful of wheat bran, half-an-hour after each meal. This was a case of dyspepsia, most likely, which was caused by a constipated condition of the bowels, which has often been cured by drinking bran and water.

BEEF TEA,

in some cases, will rest well on the stomach of a dyspeptic. A good substitute and a better nutriment is found in preparing

RAW MEAT

as follows: Beat it into a pulp, add a little boiling water to this, and shake or stir it well in an ordi-

nary bowl or wide-mouthed bottle; make it thicker or thinner, and season it to suit the taste, with pepper, salt, sugar, or whatever makes it most palatable. A whole meal may be made of this, with dry, stale bread; sometimes a teaspoonful or two of cider vinegar, or half a lemon, taken after each meal, improves the digestion of this raw meat.

This raw meat pulp is best suited to cases where there is little or no appetite, or even an aversion to food, amounting even to loathing. Most persons prefer this to

LIEBIG'S BEEF TEA,

while it is incomparably more nutritious, hence gives more strength, because it contains all the substance of the meat, more or less of which is lost in any kind of cooking.

THE REST CURE.

The fundamental ideas in the successive treatment of dyspeptics is that the removal of its cause is its cure; that it is brought on by over-work of the stomach, and that it must have rest as a means of gathering power to perform the function of digestion fully, naturally and well. Dr. James C. Jackson, the eminent and able hydropathist of Dansville, New York, thus presents the philosophy of the *best cure*, as applicable to many human maladies:—

"There is nothing like 'Rest for the Weary;' and so many of our people as are workers either by body or brain, or both, are wearied. This is true even of the children in our own country who are at school; truer still of the young men and women who are at college; none the less true of those who having reached places and positions of business responsibility are absorbed in the duties and cares of private life; quite as true, and I am disposed to think truer, of all those women who as wives are additionally taxed by the cares and duties of maternity; as true of all those men who, having to work with body, have also to work very closely and hard

with their brains. From every pursuit and vocation in life, in every class of society, comes up this cry for rest, and because there is no such arrangement as to give rest to the body, to the mind, to the spirit, it is in large measure to be accounted for that there is so much sickness. It is very difficult to find a man or a woman who knows how to rest. They understand how to work, how to toil hard, how to expend power, how to bear cares and troubles, vexations, sorrows and disappointments; many of them know how to bear poverty; but they do not know how to re-gather strength and so recover from their tiredness of body and weariness of spirit. They have notions as to what they need; plans which having cherished, they try to carry out; but in almost every case the plans or projects thus adopted and sought to be enforced involve no such conditions or circumstances as afford rest. At best they contemplate and secure only change of labour. Herein lies the fallacy of the courses adopted; and hereby is to be accounted the failure which so uniformly characterizes their plans.

"Nature demands of all living organisms, in order, first, that they may be healthy or keep free from sickness; second, that they may develop naturally and to their maximum point of growth—periods of

absolute suspension of voluntary effort. He who does not understand this and take into account the peculiarities of his organization as indicated by temperament, age, sex, habits of living, and quality of development, fails to comprehend the secret of maintaining health, perserving life and reaching such condition of character as the Creator clearly designs that every man should do.

"THE PHILOSOPHY OF REST.

"Consider the philosophy of rest. It is an admitted axiom amongst scientific men, that in order to the conservation of force and the maintenance of equilibrium, action and reaction should be equal. If this be so, then where action has been had in such a way as to expend force, the agent or instruments, the organ or organs, made the medium of such expenditure, become fatigued or tired thereby, and so need periods of suspension of activity or what I call rest. This is true of every organ or texture in the human body. Whoever is, through any pursuit, avocation or profession, putting his body in any of its parts, or as a whole, to task, in order to accomplish the objects before him, will find it necessary to the maintenance of his health, or if his health be lost, to the restoration thereof,

to give such organs in his system as by his business or profession are especially taxed, regular and habitual periods of repose. Illustrate this as one pleases, there is no escaping from the correctness of it. Does a man think as a profession? He must give himself regular periods of suspension from thought. It makes no difference in what direction the thought goes; that portion of the nervous system which is involved in action for the purpose of thought, must rest. Does he work with his muscles for a livelihood? he must rest. Does he subject his bones and sinews to great strain like a bow bent, for a time? these must be relieved from that strain. Does he subject his heart, lungs, stomach and bowels to taxation? he must give them rest. None of his organs can be relieved from this great law.

"SICKNESS THE RESULT OF OVER-STRAIN

"In my opinion, sickness, however varied in aspect or complex in manifestation, is oftener than otherwise the result of over-strain; not imposed all at once, but strain long-continued—without intervals of relief—without competency of will on the part of the persons thus made sick, to take off such strain and so give the part under pressure and

heavy labor time to recover by and through the action of the law or laws whose special function it is to repair and make good again the over-taxed and over-wrought organ. What do our thinking men know of methods whereby, under an action of the will, they may empty their brains of any and all classes of impressions, making them as unconscious of any sensible, well-arranged, profitable thought as a gourd shell is? Where one can be found who, being an educated thinker, can stop thinking, ten thousand can be found who, being habituated to thought, have no power to cease thinking. If they do not think, it must be because they are stupefied by drugs and a sort of anesthesia of the system is induced; otherwise, though they may be asleep, they think. Imagination is at work, and she carries their consciousness wherever fancy may float or fantasy may exhibit itself. Almost all our thinking men and women go out of their ordinary states of material life to dwell, during their sleeping hours, in dream land. Pictures of beauty beyond conception under ordinary consciousness are presented to their spiritual perceptions, and at times they dwell where both country and people are extremely beautiful. At such times existence becomes not merely a fact, but a state of

high enjoyment—a condition of supremest pleasure. Out of such idealisms they come on waking up, to feel how much power has gone out of them, leaving them to take up the drudgery of life under great distaste. If they do not thus live in supersensuousness when sleeping they are introduced to conditions of ideal life quite the converse; misery, wretchedness, discord, jealousy, hate, come out of the darkness and mingle themselves up with their processes of thought. Oblivious sleeping is not a characteristic of the American people. Work, work, work, is forever before us, and it is greatly to our disadvantage that it is so. I do not think that our people work too many hours, considered in their sum total; they only do their work in such unphilosophical and unphysiological ways as not to give their organizations time for rest, and so for the preservation of balance. They do things without any reference to law, and because they thus do, they suffer punishment.

"DISREGARD OF PHYSICAL LAWS.

"Lawlessness may be as much a sin when considered with reference to the maintenance and prolongation of life, as it is with reference to any of the social relations. I may not invade my neigh-

bor's precincts without committing offence. This everybody understands. I may not disobey or disregard the laws of my own organization without committing a mistake. This scarcely anybody understands. No less work need be done, but, on the other hand, more than is now done by nearly all who are workers, whatever the nature of the work, might be done if they would secure to themselves regular periods of relaxation and re-organization. Your poverty-cursed man who cannot get ahead, would be a better man, a better citizen, a better head of the family, make more money, both by earning and saving, if as a manual laborer he did not work more than eight hours a day. The entire relations of the organic or creative force and the functional or expending force within him, would be better established and productive of better results, if he worked but eight hours a day, than it can be possible for them to be if he works twelve or eighteen. Probably more than one half of the sicknesses which arise with our laboring population grow out of too long continued work without intervals of repose.

"ALL CLASSES AFFECTED.

"If this view be true of the class of our people whose bones and muscles play a main part in fur-

nishing means of subsistence, it is truer of that class of our people whose brains and nerves are mainly taxed for their subsistence. How intelligent gentlemen can rest under the delusion that long-continued intellectual application is good for children—that six hours a day is better for them than three—that to be free from the exercise of the mental faculties specifically applied and to have substituted therefor play of the muscles tends to fix in their young minds immoral ideas and impressions, is strange to me. How a minister of the gospel can be so forced one side of the true line of rational philosophy with reference to the growth in him of large affections and spiritual perceptions as to feel that preaching twice or three times a day on the Sabbath is conducive thereto, is surprising to me. How christian people can be under such an illusion as to believe that long-continued uninterrupted exercise of the emotional faculties can be made productive of growth in grace, or of a right obtainment of the knowledge of God, astonishes me. How the speculator who calculates to make money by understanding the laws of the relation of producer and consumer, or who is shrewd to guess out those chances or changes which come out of a large and widely extended combination of influences,

can lead himself to think that his reason and judgment are better at four o'clock P.M. than they are at ten o'clock A.M., is marvellous to me. How any lawyer, doctor, artist, teacher of youth, mechanic, inventor, metaphysician, can imagine that he is better qualified to take in, under thought, the relation of things in respect to adaptation, to separate or mutual use, after he has worked six hours and stuffed stomach full of roast beef and plum pudding, goes altogether beyond my power of conception.

"CAUSES OF FAILURE.

"The truth is that a large proportion of the failures in health, failures in business, and in social life, in public life, in religious growth, in power to understand human nature, in capacity for application, are caused by, or are dependent upon, such conditions of the bodily organism as are consequent upon want of rest. It is not the amount of work done, constituting over-work, of which I complain and to which is to be attributed these deplorable results. It is the way, the habit, the manner or method through or by which such work is done. It is because persons do not recognize and cheerfully follow the indications of nature in this matter of rest.

Will our people never learn to appreciate this view? If they will, two beneficial results will be seen: first, those who are not sick will keep from getting sick: second, those who have been made sick before learning it, after they have been taught it and have come to appreciate it, will get well.

I believe that of all the sick persons in this country, wherever located, ninety-five in each hundred might just as well get well as die, and of all who are not sick, ninety-five might just as well as not keep from getting sick, if they only knew how; and of all knowledge which can be obtained, conducive to this end, none would be of more avail than this of knowing how to procure thorough rest.

"THE BENEFITS OF REST.

"Give the brain rest. Give the five senses rest. Give the lungs rest. Especially give the stomach rest. Give the propensities rest. Give the heart rest. Give the bones and the muscles and the sinews rest. Give the mind rest. Say to the spirit, 'Rest, perturbed spirit, rest.' The law of inaction is as truly a law of life as the law of action. Will not the reader consider this, and have systematized and established plans, whereby in every twenty-

four hours there shall be well-adjusted, thoroughly arranged, periods of absolute rest, the life force doing just as little work as it is possible for it to do in the physical domain, while the functions of life are healthfully carried on. If parents having feeble children, husbands having feeble wives, wives having sick or delicate husbands; if teachers who are sick, ministers who are out of health, business men who are ailing; if persons who have been long sick, have taken medicine in large quantities and consulted many physicians and have grown no better, but have rather grown worse; if scrofulous persons, persons suffering from bilious complaints, consumptive people, rheumatic persons; if those who have the sick-headache; if women suffering from local weaknesses; if drunkards, dyspeptics, gluttons, and the like, will only take up this idea of rest and give it consideration and proper estimation in their minds as of therapeutic value; if, after having thus conceived and considered it, they will place themselves in relation to its application where it can be practically enforced, they will see marvels in the way of beneficial results, rousing the deepest interest in the minds of all observers. Rest-cure is the great cure. The sick get well by getting their vital forces to act normally. Normal

action, when applied to persons in health, is a preservative; normal action, when applied to persons sick, is a curative. Suspension of activity as well as expression of activity, is a part of the law of normality. Let this be taken into account, and where, by a long series of unbroken efforts in the way of expenditure of vitality, sickness has been induced, let the sick one turn his face towards a consideration of and a belief in the value of the law of rest. If he does so and is curable by any methods under the sun, the application of this principle will cure him. The principle is capable of very comprehensive and varied combinations. Rest of the bones and muscles renders rest of the nerves possible; rest of both of these renders rest of the stomach possible; rest thus added to these renders rest of liver and other functional parts possible; rest of all these renders rest of the brain possible; rest of this renders rest of the mind possible. So the whole man rests, and as he rests so he recreates. Sickness which results from the perversion of activity or over-activity begins to be abolished when he begins to rest. Rest long enough and restoration is the result; and once cured on this principle there is no sense and therefore no necessity in one's thereafter becoming sick."

AVOIDABLE THINGS IN DYSPEPSIA.

Avoid cold feet.

Avoid costive bowels.

Avoid cooling off too soon, after all forms o exercise.

Avoid fatigue; always stop before you are much tired.

Avoid chilliness.

Avoid all tonics, stimulants, spirits, bitters, tobacco, or any other excitant.

Avoid eating before the time comes, merely to quiet the craving or gnawing of goneness.

Avoid fats, sugars, sweet milk, eggs, and coffee; you may favor yourself greatly by selecting your food. It may be well to begin on the "Special Fruit Diet," elsewhere spoken of. At all events you are safe in beginning with roasted beef or mutton, lean; cracked wheat, or wheaten grits, or Graham bread, and good butter, with all you can eat of berries, cherries, currants, melons, grapes, and peaches and apples, after breakfast and dinner, as dessert, taking them in their natural, raw, ripe, perfect state; if not in the season, take them stewed or baked, but not preserved.

It was not intended in this article to detail any curious cases or to waste space in long disquisitions but to present simply the main features of the disease as presented in ninety-nine cases in a hundred, so as to reach the masses of the people. If compelled to state the certain cure of dyspepsia in three rules, they would be:

Eat regularly thrice a day.

Eat just as much as will not be followed by any discomfort.

Spend from five to ten hours every day in interested and profitable out-door activities.

The almost universal cause of dyspepsia is error in eating; the almost universal symptom is an unpleasant reminder that there is a stomach; the almost universal principle of cure is never to eat so much at any regular meal, of not less than five hours' interval, as will attract the attention unpleasantly to any portion of the body. No method of cure ever succeeded which did not involve this principle, and when regarded, this alone will permanently cure any curable case, without one atom of medicine of any kind, and the cure will be expedited in proportion as the time from after breakfast to sundown is expended in profitable, agreeable, and absorbing out-door activities.

GENERAL INSTRUCTIONS.

The actual dyspeptic, as well as he who is recovering from this malady, will find that whatever instructions are necessary to the old, the young, the infirm, are especially applicable to his own case. He should remember that he is a tender plant, especially amenable to the injurious influences of summer's heat and winter's cold, of excesses even in good things, and in addition, should be always on his guard against everything calculated to do him even a slight injury.

Years before a person reaches sixty he is spoken of as an old man, but long after he has passed three score he does not admit that he is "old;" he insists that he feels as well and strong as he ever did in his life, and, anon, begins to persuade himself that seventy is not a very old age; while at thirty he felt a kind of pity for any one who should speak of his being over forty. It would be better for us partly to acknowledge at three score that we are among the old, and act accordingly. It can be easily proven by taking a long day's ride, or a hasty run up stairs, two or three steps at a stride. During November eighty-three persons died in New

York city who were not over seventy years of age, a very much larger per-centage in proportion to numbers than among any other class except infants. The reason is that the old are so feeble and so frail, the delicate machinery is so nearly worn out, that the slightest causes derange, even if they do not destroy. This is proven by the fact that it is announced, of most of them, that they died suddenly. This directs attention to the other fact that the cold of winter is perilous to old age; but it would be much less so if a wise attention were given to a proper adaptation to the surroundings attendant upon the changed and changing conditions of the days and times and seasons. The foregoing and following are especially applicable to dyspeptics:

The air of November is more bracing, more life-giving, because purer and drier than that of the early fall; at the same time there is a searching rawness in the early morning and about sundown which is peculiarly trying to all who are not in vigorous health. Hence a safe rule for the old is never to leave the house in the morning until after a good hot breakfast, allowing time also for a little rest and a good warming after breakfast. Then make it a point to be snug at home, before a cheer-

ful, blazing fire, at least half an hour before sundown.

Exposure to the cold and chilly air without the conditions just named, more than counterbalances the bracing condition of a cooler temperature.

Warmth is the heaven of three score-and-ten; it gives life to the blood, activity to the circulation, and vigor to the whole frame. Cold chills the skin, closes the pores, shrivels the surface, and drives all the circulating fluids in upon the centres, notably the heart and lungs and brain, congesting, crowding, over-straining their delicate machinery. Thus it is that so often the cords of life are snapped in a moment. The bowl is broken at the cistern and the wheel at the fountain, by pneumonia, heart disease, and apoplexy, with many times not the advantage of a moment's friendly warning.

Warmth, abundant warmth, in the morning from a brightly burning flame in winter, adds largely to the comfort, health, and general well-being of the old, as well as of the infirm, invalids and children: hence it is poor economy, as well as hazardous, to defer building fire until late in the fall, and it is quite as injurious to put them out too early in the spring.

In every well-regulated household there should be one room for common resort, in which a generous fire should be brightly blazing on the hearth from early morning until bed-time, especially where there are old people and children, from the first of November until the middle of May, at least, north of Virginia. A portion of the time the fire may be allowed to go out during the middle of the day, but it should never fail to be kindled at sunrise and sunset, between the dates named. If there is an exceptionally warm day, still have the fire, but avoid the room if necessary; for the warmth of a blazing fire in the early fall and late spring is known to antagonize certain baleful ingredients in the atmosphere those seasons and hours which are productive, if breathed, of a large class of ailments, such as diarrhœa, dysentery, and fever and ague. Of the various adaptations for such fires, whether from wood, coke, soft or hard coal, the Dizon sundown grate seems to be the least troublesome and the most convenient and philosophical.

The least observant have been conscious of a feeling of comfort, exhilaration, and life, on entering an apartment on a cold day, where there is a brightly-blazing fire; and as the old, with their waning hopes and wasting strength, so much need

whatever may tend to cheer and enliven them, those who love them most will do them the greatest service by contributing to their comfort in the directions above alluded to.

A warm room is better than a cold one, although it is made so by the dull, heavy, oppressive, stifling heat of a register or of hot water, or hot-air pipes; but these so signally fail to impart life to the blood and cheeriness to the spirits, that families would save by economizing in several other directions, rather than in the case in hand.

CLOTHING IN WINTER.

It is better and safer that dyspeptics as well as all old persons, should put on their winter clothing as early as the first of November, and begin to lay it aside by degrees in May.

The invalid and the old should studiously and habitually watch against any feeling of chilliness for a single moment, as while sitting or standing still in damp weather, in a cold room or out of doors, which last proved the death of Washington. There is danger, also, in sitting still on horseback or in vehicles until the body is chilled through and through; remaining still in damp clothing, lying between damp sheets, or going to bed in a chilly

condition, or with very cold feet, these have been often causes of inflammation of the lungs, because chilliness of the surface makes itself felt first in the lungs, causing pneumonia, which is always a tedious disease, often dangerous, and not seldom fatal in a few days.

If the reader will direct his attention to this point he will be surprised to find how many old persons are stated in the papers to have died of pneumonia, the scientific name for inflammation of the lungs. The circulation of the blood in the breathing organs is feeble in the old, and very slight causes increase that feebleness, but it is this circulation which generates the necessary warmth of the body, and if that is impended by any means pneumonia is a common result.

DEATH FROM A DINNER.

The dyspeptic can recall instances in his own experience of an uncomfortable chilliness after a good hearty dinner. That man was not far from death! The fires of life are kindled in the lungs. The more fully they are supplied with blood the warmer is the body; if they are scantily supplied chilliness follows, with dangerous symptoms in proportion to its degree. When the stomach is full

of food a large amount of blood must be sent there to enable it to carry on the process of digestion. If blood is not supplied there is weight at the stomach,

CRAMP COLIC,

and sometimes death. Hence there is a sleepless instinct on the part of nature to supply an extra amount of blood to the stomach after each meal. This extra quantity is taken from other parts of the body, but if too large an amount is taken from any portion derangement of its healthful operation is an instantaneous result. Hence if an old man, weary and tired at the close of the day, feels very hungry and eats heartily, the necessity of a large supply of blood to the stomach is so imperative that the lungs are robbed and the man dies before the morning of pneumonia, apoplexy, or heart disease. It is, therefore, a great risk for any old person or dyspeptic to eat very heartily at any time. It is safer and better to eat four times a day so as never to be very hungry. Indeed, all persons should specially guard against indulging to the full at any time of day, especially if very hungry and very tired, and not over warm.

CHANGE IN HABITS.

The old, the feeble and dyspeptic should be slow to make any change in their daily habits, their calling, or their places of living, for all these, all that is new to them, makes drafts upon their reserves of strength, and they have none to spare. A man in vigorous health can more easily walk along an accustomed road than a new one, especially if he has to find his own way. On the same principle the older we are the more discomposing it is to sleep in a new place, a new house, a new room, or a new bed; hence all, after three score, should avoid as much as possible being from home for a single night. Some persons have a strong prejudice against moving into a new house, from the fact that it has been so frequently observed that men who have built houses for themselves have died soon after taking possession. But it will be noted that almost all such are old people, whose death resulted mainly from such slight causes as unseasoned wood-work, undried plastering, or the chambers being contaminated with the odor of paint, or freshly-papered walls. Persons in vigorous health are able to withstand these slight causes of disease, but the circulation of the old is so

feeble, the delicate machinery of life is so nearly worn out, that the slightest strain often crushes it, and we pass away.

EXPERIMENTAL EATING

should be most carefully guarded against by dyspeptics.

Many a man has eaten something which he knows has given him discomfort before, but he is "very fond of it," and hopes that in some way or other he may indulge with impunity this time. Others, again, are tempted to eat largely of a new dish, one which they had never tasted before, and being very savory they have partaken heartily. The dyspeptic should never make such experiments; it can never be done without danger.

TAKING A NAP.

After three score it is better to have a short sleep during the day, either in the forenoon, after a late dinner, or after supper. It should be taken on a sofa, or lounge, or in an armchair, not in bed, because that invites a regular long sleep, which interferes with the rest of the night, and makes one dull the remainder of the day; while a nap not exceeding twelve or fifteen minutes refreshes the body

wonderfully, enlivens the spirits, and promotes social suavity and good nature generally.

SLEEP ALL YOU CAN.

Dyspeptics should get all the sleep and rest they can. They may not be able to sleep the night through and may not feel fully rested; in fact, it seems to them as if they wanted more sleep, but they cannot get it. The next best thing is to rest in bed for an hour or more. This supplements sleep and gives time for nature to recuperate her energies.

After three score, they will live the longest who sleep and rest the most and do the least, except in a quiet, composed, and uniform way. Hurry, haste, over-efforts of body or mind, extra excitement of the emotions or intellectual faculties, or of the affections, are always dangerous to the old.

PHILOSOPHY OF EXERCISE.

It may aid the intelligent dyspeptic, in the practical use of his physical and intellectual strength to have a proper understanding about the principle, involved in all forms of exercise, originally written for the *Christian Weekly:*

"Every one rises in the morning with a certain amount of physical strength, which has accumulated

during the night in proportion to the amount of healthful sleep which has been obtained. To expend that strength and no more during the day and to do it habitually, is the true philosophy of healthy living. If more is expended, that is, if the reserves are too largely drawn upon, there is depletion and friction, and wear and waste of bodily substance; the man is too tired at night, and the exercise of the day has done him more harm than good. If too little of the strength has been expended during the day, then the food eaten has not been fully digested; the blood has not been perfectly made, the body has been insufficiently nourished, and the foundation for debility and disease has been laid. These are the general principles, indicating the great practical fact that the true system of work is to keep at it only until a little tired, and not continue it after weariness comes: thus will that equability of habit be maintained which is promotive of a long and healthful life. Hence it is not true that the more tired a man is at night, the more healthy it is, for he may be too tired to sleep refreshingly.

"It is not true that the more violent the exercise the more healthy it is; it is directly the reverse,

for it is a shock to the system, it is an overstrain and to that extent is a permanent injury to the delicate organization of the body, as much as the strain on a ship or the workmanship of a watch.

"As a general rule base-ball men, cricketers, rowers, and those who have achieved victories in competitive games, do not live long. Mr. John Lillywhite, the best cricketer in England, recently died before fifty, although he had a compactness of build which should have secured him a full threescore years and ten. He was a gentleman of intelligence, close observation, and good judgment, which led him to retire from the game which he saw was undermining his constitution, and within a year after the acknowledgment he died. He told the writer in London in the summer 1873, that the first point of injury was the overstrain, the second that after a play, while resting, there was a constant temptation to stand around and enter into conversation about the game, exposed to drafts of air while in a heated state, making a cold almost inevitable, and then there were pressing temptations to take drinks after a play and before renewals, in order to brace the system to the necessary effort, with the result

that before a man knew it he would find himself in the habit of taking half a dozen drinks a day.

"It is from the fatigue and overstrain that all competitive games are injurious to the constitution. To make exercise healthful, the strength must be expended equably, steadily and deliberately. It is the ploughboy who lives to be an old man; it is the steady laborer on the farm who may calculate on his 'fourscore.'

"The reserve of strength with which a man starts out every morning is expended in two different directions, the brain and muscles, in thought or work. Thought is the more exhausting of the two: the farmer can work from morning to night from one week's end to another and thrive upon it; the brain-worker cannot profitably spend more than six hours out of the twenty-four in working out his problems. The most successful and voluminous literary men of our time, who maintain their vigor to a good age, do not spend more than four or five hours at their desk, having found that that was the limit of their endurance and pleasurable labor.

"Strength is often wasted by its injudicious expenditure from the failure to put it out on the chief labor of the day. A clergyman who chops wood or

splits rails during the morning, would not be at all likely to do his best work on his sermon that day, because he has already used up strength needed for study. And if on Sabbath morning he takes an exhaustive walk to visit a sick parishioner, he will fail to make the best of his public services. A farmer, Mr, Johnson, of Sullivan County, Illinois, who with a large number of laborers cultivates fifty thousand acres, has found that it pays to have his men ride to their work of mornings, which is that much towards preventing them from being over weary; they are required to ride home from their work at night, leaving all their strength to be put out on the work of the farm and not in useless long walks, thus preventing over weakness, which gives restless sleep.

"The merchant, the banker, and other business men of New York of heavy responsibilities, who live a mile or two or more from their counting-rooms, cannot afford to walk the distance after breakfast; no animals exercise after a full feeding. All the strength is imperatively needed for the brain-work, on the proper performance of which very large interests are at stake. A. T. Stewart is not seen on foot except at his own door, and he

seems as young as ten years ago. A business man may walk home to great advantage physically, mentally, and morally, because the excitement of the day's work has been in the brain; there is a large excess of blood there, extending almost to an inflammatory condition. Exercise of the muscles draws that surplus away from that important part and is expended on their own workings, hence, when he reaches home, he feels less tired than when he left his office, stronger, more buoyant, and will be more likely to meet his family with a loving smile, instead of the tired look, the contracted brow, and the anxious countenance.

"It is the same with the mechanic who lives a mile or more away from his business; he should by riding save his strength for his proper work, and if working for himself he will find that at the close of the day he has done more work, and better and easier, hence is less tired, than if he had acted differently.

"He commits a grave error who, having a heavy day's work before him, gets up earlier than usual that he may have more time to do it in, because, by lessening the hours of sleep, which gives strength, he begins the day with less than the usual amount,

to do more work; the certain result will be that the work will not be as well done nor as easily."

It must commend itself to the conviction of reflective minds that the less we exercise the less health we have, and the more certain are we to die before our time. But comparatively few persons are able to explain how does exercise promote health. Both beast and bird, in a state of nature, are exempt from disease, except in rare cases; it is because the unappeasable instinct of searching for their necessary food impels them to ceaseless activities. Children, when left to themselves, eat a great deal and have excellent health, because they will be doing something all the time, until they become so tired they fall asleep; and as soon as they wake, they begin right away to run about again; thus their whole existence is spent in alternate eating, and sleeping, and exercise, which is interesting and pleasurable. The health of childhood would be enjoyed by those of maturer years, if, like children, they would eat only when they are hungry; stop when they have done; take rest in sleep as soon as they are tired; and when not eating or resting would spend the time diligently in such muscular activities as would be interesting, agreeable, and

profitable. Exercise without mental elasticity without an enlivement of the feelings and the mind, is of comparatively little value.

1. Exercise is health-producing, because it works off and out of the system its waste, dead, and effete matters; these are all converted into a liquid form called by some "humors," which have exit from the body through the "pores" of the skin in the shape of perspiration, which all have seen, and which all know is the result of exercise, when the body is in a state of health. Thus it is, that persons who do not prespire, who have a dry skin, are always either feverish or chilly, and are never well, and never can be as long as that condition exists. So exercise, by working out of the system its waste, decayed, and useless matters, keeps the human machine "free;" otherwise it would soon clog up and the wheels of life would stop forever!

2. Exercise improves the health, because every step a man takes tends to impart motion to the bowels; a proper amount of exercise keeps them acting once in every twenty-four hours; if they have not motion enough, there is constipation, which brings on very many fatal diseases; hence exercise, espe. 'y that of walking, wards off in-

numerable diseases, when it is kept up to an extent equal to inducing one action of the bowels daily.

3. Exercise is healthful, because the more we exercise the faster we breathe. If we breathe faster we take that much more air into the lungs; but it is the air we breathe which purifies the blood, and the more air we take in, the more perfectly is that process performed; the purer the blood is, and as every body knows, the better the health must be. When a person's lungs are impaired, he does not take in enough air for the wants of the system; that being the case, the air he does breathe should be the purest possible, which is out-door air. Hence, the more a consumptive stays in the house, the more certain and more speedy his death.

HOMŒOPATHIC
TREATMENT OF DYSPEPSIA.

Homœopathic Treatment of Dyspepsia.

This method of treatment is given here for the satisfaction of that large number of persons who favor homœopathy and who, purchasing the book, might feel disappointed in not finding something in relation to that mode of managing the disease. The intelligent reader will be interested in many of the details. In giving the homœopathic idea of dyspepsia, its causes and its cure, it will not be necessary to adhere to the exact words except as to doses, and condensation in other things will be practiced.

The word indigestion is preferred by these practitioners, and they consider it the prolific parent of chronic disease, and, in fact, as has been previously stated, lays the system peculiarly liable to all forms of disease, whether acute or chronic, because it keeps the whole body and every part of it in a debilitated condition, and hence unable to resist mortific influences.

The predisposing causes are all such as tend to impair the general health, as bad air, and hereditary

and constitutional defects, but the more immediate, the directly exciting, causes, the coal which touches the powder, are irregular eating, over indulgence, large use of wines and spirits, head study, exhausting occupations and the like, the foundation of the malady being frequently laid in early life, as already referred to.

Indigestion is not necessarily in all cases attended with actual physical suffering or pain. It occurs in its worst organic forms without any exhibition of symptoms in the digestive organs themselves, hence the need of close inspection and discrimination, but in the great majority of cases the original seat of the disturbance will be identified in the digestive and nutritive functions.

The disease is a local increase of the natural irritability, irritation at first, and then a deficiency of it which is

WEAKNESS OR DEBILITY,

communicating the ill effects to the brain, to the mental and moral faculties, to the cord which is the centre of motive impulse; to the liver, by interference with the bilious discharge, by regurgitation, by nervous affinity; to the blood by insufficient or altered supply in quality or quantity, and through that to

the heart, lungs and skin; and in short the whole muscular and nervous systems are affected and impaired; the stomach being deranged, the diseased conditions are communicated to the intestines, impairing the whole apparatus of nutrition and its appurtenances. But in all cases it must not be forgotten, that if cure is looked for in the original seat of the disease, the stomach, must be attacked, and predisposing causes removed. Homœopathy, however, operates on the stomach by administering medicines adapted to all the symptoms observed, it being important to combine these with other appropriate measures, as diet, exercise, habits of life, &c., bearing in mind all the time that as the disease came on by increased irritability over them, an increased susceptibility to irritation, there must be the most perfect avoidance of everything stimulating and irritating.

The stomach is affected by a wrong condition of the brain and the nervous system, because its power to work is derived from this source; on the other hand, the brain and the nervous system are affected by a dyspeptic condition of the stomach causing

Mental derangement,	Impatience,	Fretfulness,
Nervousness,	Agitation,	Changeableness
Anxiety,	Irrascibility,	Peevishness,
Excitability,	Fearfulness,	Weariness.

These have their origin in the disordered condition of the brain in consequence of its being fed with imperfect blood, blood not well made, because the food out of which the blood is formed was not well digested.

PAINS

In the head, expansive, darting, spasmodic; giddiness, a great multitude of sensations of weakness; of heat and cold, tremblings, convulsions, cramps, spasms of limbs and muscles;

NERVOUS VITALITY

is gradually impaired, leading to a more or less want of control of the muscles of voluntary motion, ending in various forms and degrees of palsy.

THE BRAIN

sometimes becomes more or less torpid; there is numbness, indicating suspended sensibility, extending to the whole nervous structure. There is dullness, indisposition to thought or any mental effort, with listlessness, depression of spirits and gloomy forebodings.

HEADACHE,

dull, sharp, obtuse; heaviness, sense of smell preternaturally acute or at other times very deficient; pain in forehead,

SICK HEADACHE,

unnatural taste in the mouth from a morbid condition of the mucous membrane of the stomach and its extension above and below.

THE LUNGS

are often affected, the gas of undigested and decomposing food distends the stomach, which, pressing upwards and crowding the lungs, interferes with their free action and causes oppression and shortness of breath.

The liver is frequently affected in consequence of the morbid condition of the lining of the stomach extending itself to the bilious organs; hence it is frequently the case that the dyspeptic has occasional attacks of biliousness with its ordinary symptoms of nausea, sometimes vomiting, fitful appetite, and aversion to food.

The heart is functionally implicated in dyspepsia, because all the blood of the body passes through it many times a day, and being imperfect, unnatural and impure, it must cause an abnormal action of the heart, and the result is that the pulse is often weak and feverish, and palpitations are frequent and sometimes distressing.

At other times the blood, not having enough life, does not impart its natural stimulus to the heart, and it becomes torpid, does not beat fast enough; does not throw the blood far enough out towards the surface and the extremities, causing the dyspeptic to feel chilly and dull and weak; the least thing in the world gives him a cold, with all the discomforts connected therewith.

THE SKIN

partakes of the general de angement and is often hot and dry or cold and clammy, having a sepulchral feel with a variety of peculiar morbid sensations, such as

Crawling,	Itching,	Pimples,
Tingling,	Spots,	Sallowness,
Irritation,	Pricking,	Redness,
Shuddering,	Splotches,	Turgidity,

THE EYE AND SIGHT

often sympathize with the unnatural condition of the stomach, and they are watery, there is a dark rim around or under them, sometimes blood-shot, the lids are swoolen or red and angry-looking, glutinous and gummy discharges are seen on the lashes, sometimes there is partial-blindness for short periods, with trembling of the lids.

The ears and hearing may also be impaired: they may become greenish, and no wax is made, and there is more or less of head and burning pain.

All these varied results may attend a dyspeptic condition of the system, because the stomach is the seat of disease, and its lining, called the mucous membrane, being disordered and extended in every direction towards all inner surfaces, the disease is communicated and spreads as a fire spreads wherever there is combination of wood, or grass, or leaves.

Homœopathy gives several varieties of dyspepsia. 1. Where only the functions of the stomach are involved causing irregular operations. 2. Organic, causing a destructive change in the structure of the parts, as in cancer, ulceration and the like. 3. When the lining membrane is affected. 4. The nerves of the stomach become deranged. 5. In time both the nerves and the mucous membrane are implicated, when it becomes dyspepsia in its worst forms.

THE GREAT REMEDY

for dyspepsia in its common forms in the homœopathic treatment is nux vomica or strychnine which is obtained from the nut of the strychnos

tree, (See *Health at Home*, p. 477), in the Island of Ceylon, bearing rich, orange-colored berries as large as a pippin apple contains, flat round seeds an inch in diameter, covered with silken, ash-coloured hair; this nut is of such a deadly poison that the natives give it the name of dog killer. A nut contains about twenty grains, and one gradually learns to eat it like opium, and with similar results. One nut generally lasts a week. It must be taken just before or just after having eaten, otherwise convulsions will follow. Strychnine as we see it is a whitish crystal and is freely used by physicians, in small quantities, and in nervous affections chiefly. If too much is taken death will ensue in a few minutes. If taken inadvertently or by design, the most generally accessible remedy or antidote is to drink warm milk and water, half and half, one, teacupful every two minutes until there is free vomiting, then take twenty grains of bromade of potash dissolved in water, or a glass of lemonade, or a tablespoonful of vinegar in a cup of water; or eat two or three lemons. The symptoms of poisoning from strychnine are great bitterness in the mouth, convulsions, sometimes the limbs are stiff and straight, jaws firmly closed, as in lock jaw, drowsiness, hard breathing, fainting, and death. This was

the medicine taking by Professor Webster when riding to execution in a carriage. He was a superior chemist, and with all his knowledge he chose this drug as most likely to produce almost instantaneous death. A portion of a grain on a cat's tongue destroys life instantly; on the tongue of a man convulsions follow. Webster did not apportion the dose properly, hence it failed of its designed effect.

Homœopathists make large claims for the beneficial effects of strychnine on the organs of digestion and on the evacuations. The volume referred to page 886, says it is advantageouly given for "general derangement of digestion with foul taste whenever one has eaten anything, foul taste in the mouth and tightness around the waist, and upper part of the stomach, with sensation as if the clothes were tight, painfully tight; the muscles of the stomach feel as if bruised; costiveness, conveying the idea of constriction of the lower bowel and attended with fruitless urging; constant risings in the throat; of a bitter or sour taste; hiccough; the pit of the stomach painfully sensitive to the touch; nausea and inclination to vomit; retching; vomiting of phlegm, bile, sour matter or undigested food; the vomiting is most prevalent in the morning, at

night, or soon after eating, and is often attended with headache, cramps, anxiety and tremulous debility; obstinate constipation, or alternate constipation, and diarrhœa; the motions in each case being imperfect and insufficient; large, hard motions or frequent evacuations, composed of slime and froth, and attended with urging; dysenteric exhaustion, with cutting pains in the region of the naval; pressing and straining on the lower bowels, and evacuations mixed with bloody mucus; the posterior passage is very painful; piles; great tenderness of the pile swellings; protrusion of the lower intestines and piles; soreness of the bowels; sensation as if something alive were moving in the intestines; dragging sensation about the groins, as if rupture were imminent; urging to press water without effect or with discharges by the anis, attended with great suffering and burning in the head of the bladder and thence downwards; sensation of qualmishness chiefly after eating or at night, attended with weakness and anxiety; dark, almost red urine depositing a sediment like brick dust."

Such are the ailments and symptoms which strychnine is given to remove, and as most of these symptoms are present in dyspepsia, it is quite natural to suppose that it is peculiarly applicable in

the treatment of this disease, hence the Homœpath administers it for the following symptoms. "Applicable to the treatment of indigestion in hypochondriacal subjects. It covers the following symptoms either when they have arisen in consequence of sedentary habits, excessive mental exertion, or long watching, or of overloading the stomach, of excessive draughts of milk, or even water, or of eating or drinking acid things, or of using spices and seasoning to excess; or again in cases in which all food or drink, however free, light and digestible, provoke indigestion—sometimes it arises from the abuse of coffee, tobacco, wine or ardent spirits, or when the irregularity of the digestion has been increased or confirmed by loss of animal fluids, as profuse sweating, bleeding and the like, or by habitual recourse to aperients, the head is confused with occasionally a feeling as if resulting from intoxication, and giddiness, with sensation of turning and wavering of the brain, headache unfitting for and increased by mental exertion, tearing, drawing or jerking pains in the head and pulsitive pains, and a sensation, as if a nail were driven into the brain; congestion of blood in the head with humming in the ears.

THE HEADACHES

are often deeply seated in the brain, or in the back of the head, frequently confined to one side, or over the eyes, or at the root of the nose, coming on chiefly in the morning after a meal, or in the open air.

YELLOWNESS

of the lower part of the white of the eye with a mist before it, a sensation as if one were about to fall; specks of grey or black or red spots before the eye; short-sightedness; pale or yellowish color or redness of the face, especially about the mouth and nose; frequent headache with impaired powers of digestion with insipidity of food; foul, dry, white or yellowish tongue, vivid redness of the margins of the tongue; thirst, with water-brash, particularly after acids or rich food; accumulation of slime, phlegm or water in the mouth; taste, metallic salt, sulphurous, herbaceous, bitter, sour, sweetish or putrid, chiefly in the morning or after meals; bitter eructation or continued nausea, especially after meals, or even after drinking cold water or milk, or in going into the open air after a meal or after partaking of acids; heart-burn, hiccough, exciting

flatulence; frequent and violent vomiting of food, phlegm or bile; ineffectual efforts to vomit, distension and fulness of the region of the stomach, with excessive tenderness to the touch; a feeling of tightness of the clothing around the upper part of the waist; cramps in the stomach, constipation reddish urine, with brick dust-colored sediment; sleep unfreshing and restless, either from suffering or otherwise, with disagreeable dreams or drowsiness in the mornings, tending towards an exaggeration of the symptoms during the prevalence of a northerly or easterly wind, or when the atmosphere is loaded with vapor; amelioration after-warm food." Such are the symptoms and combinations of symptoms of dyspepsia as detailed in the "Homœopathic Domestic Medicine," as affecting different parts of the body, and which would seem inexplicable but for the comprehensible fact that the disease is in the stomach, with which the

PNEUMOGASTRIC NERVE

communicates, and which, in a more or less direct manner communicates with almost every part of the body; the word pneumogastric being made of two words of Greek origin, one meaning the lungs, the other the stomach, branches of which go to all the re-

gion roundabout, as the telegraph wires from the WesternUnion building on Broadway, N.Y., spread out towards every part of the country and the world, and if there is derangement there, there is derangement wherever these wires reach; let the derangement be corrected there, and the perfect workings will be corrected everywhere else; this derangement may arise from a faulty acid without which acid in its proper purity and power the wires will not work at all; connect that and the influences are scattered over the whole surface of the earth; to bring about this result, only one thing has to be done. So in dyspepsia, if one thing is done in the stomach, the interminable list of symptoms just detailed is wiped out and the whole man is well. This is done as named in the first part of the book by giving the stomach rest; firstly, giving it less work to do, by not eating so often and so much and, secondly, by giving it work to do which it can do easily, as supplying it with plain food, grains, fruits and meat. The homœpathists claim to be able to bring about the same result by a medicine, *nux vomica*, or called by some strychnine. The most distinctive indication for the employment of which, in preference to cocculus, is the temperament, which is restless, irritable, lively and choleric. A disposi-

tion to piles also a good indication, for two reasons, it draws the irritation to a part of the body distant from the stomach, thus relieving and resting it and also relieves the system of some of its extra blood imperfect and impure, and these are the qualities which cause the symptoms; and the less blood there is to cause these symptoms, the lesss decided they are. These things being so, it is not wonderful that one remedy, if efficient, can remove so many symptoms.

Three globules of *nux vomica* dissolved in a teaspoonful of water are given night and morning for a week; then pause four days, resume the same remedy in similar course, or suspend treatment on proceeding with another medicine, according to the circumstances which are present. If *nux vomica* be not apparently capable of effecting a permanent cure, consider the next remedies, Cocculus, Carbo-beg., Pulsatilla, etc.,

Cocculus is for higher bilious subjects; Carbo-beg for persons of advanced years; Pulsatilla for females especially if hysterical, supplemented by Ignesia twelve hours after the fourth dose of Pulsatilla if the latter has failed in affording permanent relief and does not promise to complete the cure.

While the homœopath has great reliance on *nux vomica* as a remedy he strongly insists on a studious attention to diet and regimen, and the removal of the predisposing causes, and under the head of exciting causes are very properly placed "close, unhealthy ill-drained, ill-ventilated dwellings; proximity to some factories; hereditary or other constitutional defects, the influence of the atmosphere of particular elements and localities; exposure to unhealthy exhalations; the water of particular localities, which is impregnated with mineral substances especially lead, and in which diseases like dyspepsia assume an epidemic form."

The more immediately exciting causes from a homœopathic stand-point are inequalities in diet, such as over-indulgence in the pleasures of the table; partaking of rich and indigestible food and stimulating soups; excess in the quantity of food; excessive use of wine, malt, and spirituous liquors; tea and coffee, and other stimulants imperfect mastication of food; irregularities of, or too long fasting between meals; indolent or sedentary habits, or exhaustion from intense study; keeping late hours; mental emotions; relating to the external surface, as checking perspiration and cooling off too quickly after exercise or work. The foundation of

this disorder is pregnantiy laid in early life by the frequent and copious administration of aperients, as salts, castor-oil and other deleterious drugs; and the evil is perpetuated in more mature age by a continuance of the same hurtful and unwise practices. An abuse of tea and coffee is a frequent cause of many of the symptoms of dyspepsia, such as sick and nervous headaches, attended with excitement and other symptoms of indigestion, which will frequently disappear on the disuse of these beverages.

If, however, the troublesome symptoms should continue the course of treatment should be adopted already detailed. The homœopath considers the ordinary causes of dyspepsia are hurried and imperfect mastication; overloading the stomach; fat, greasy, indigestible or tainted foods, flatulent vegetables, ices, stimulants and others. There are causes of what may be called single or acute attacks of dyspepsia, under the head of the "Treatment," for which it is observed that when the symptoms of approaching derangement of the stomach declare themselves immediately or a few hours after a repast which has been too freely partaken of, a cup full of strong coffee, without milk or sugar, is frequently a sufficient restorative; should, however, this fail to

relieve a sick headache, and inclination to vomit be present, nature should be assisted by various artificial means, the milder, if sufficient, the better, such as tickling the throat with a feather, by giving tepid water to drink until the stomach has completely evacuated its contents. Ipecacuanaha is a most affective remedy when continuous and most distressing nausea forms the most prominent symptom. Its alternate employment with Pulsatilla, in preference to Antimonium, is advisable when the disturbance has arisen after a full and hurried meal; also, when a rash has been thrown out from the effects of a disordered stomach attended with anxiety and oppressed fretting and sickness, this remedy will in most cases effect speedy relief. Ipecacuanaha should be employed singly if it be sufficient individually to consume all the manifestation which occur here, if in alternation with Pulsatilla or afterwards in respect of Antimonium. If singly, three globules in a teaspoonful of water every three hours until amelioration or change."

Strychnine is as much relied on in acute attacks of dyspepsia as in the chronic form—in doses of four globules in a teaspoonful of water; or if one dose be not sufficient, of a solution of twelve globules to three tablespoonfuls of water; give a teaspoonful

every three hours, until amelioration or change; if then the symptoms, although materially modified, be not wholly subdued, continue to administer similar doses night and morning for three days, or longer, if necessary.

The allopathic treatment in such cases would be the administration of an emetic; this would give immediate relief, and if followed by a little sound sleep the patient will be as well as ever in a few hours. But both treatments are seriously objectionable; an emetic is a powerful remedy; it shocks and strains the system and always leaves it in a debilitated condition, which however is entirely recovered from in an hour or two.

There are two objections to the homœopathic method of treatment. The stomach is too full, that is the trouble, it cannot work, and to increase this fulness by drinking successive cups of strong coffee is over-loading it still further with what is considered an exciting cause of the malady, and at the same time resulting in causing the oppressed organ to labour for hours and hours together to get rid of the surfeit, of the vast mass of decomposing food; the inevitable consequence being a slow and tedious recovery, protracted to days.

The hygienic method, as previously intimated, avoids all the objections named, offers no violence, but merely assists nature, simply advising when a person finds he has eaten too much he must not add anything, must not put anything either solid or liquid into a stomach already too full, but get rid of it in a natural way by working it off in two ways. Moderate exercise or work in the open air to the extent of inducing a very slight moisture on the skin and kept up for several hours; this is an infallible remedy, to be followed by giving the stomach rest for a day or two in giving it little work to perform, supplying it with fruits and bread or porridge and a very little meat.

But as there are cases in which it is impracticable to go out of doors, as in inclement weather, or after night, or the system is otherwise debilitated, the next best thing is to kneed the stomach as described on another page, gently, continuously, for four or five minutes, which tires the patient somewhat; but after resting half an hour repeat the operation and so continue, spending a portion of the interval in walking back and forth in the room; learning wisdom enough by it all to prevent a repetition of the suffering and trouble by not indulging in a second debauch.

In the "Homœopathic Domestic Medicine" already referred to, there are some instructive remarks, well worthy of special attention, under the head of

SPASM IN THE STOMACH.

Symptoms—contractive or spasmodic, or gnawing pains about the region of the stomach, extending to the chest and back, attended with anxiety, nausea, eructation or vomiting, with faintness and coldness of the extremities. The patient is sometimes relieved by emission of ascending wind, and when complicated with heartburn, by a discharge of a quantity of limpid fluid; headache and constipation are occasionally present. In some cases the pain is very slight, but there is always more or less of it, and a degree of anxiety, with nausea, often increased by taking food. The disease is frequently complicated with some disease of the liver, spleen, or of the pancreatic gland, or even by cancerous degeneration of the stomach. It is a frequent attendant on gout. It is a more frequent affection in the female than in the male, often occurring after, or about the cessation, of the usual monthly periods, or from any interruption of their usual course; in such instances it is usually accom-

panied with hysterical attacks and fainting, and may even pass on to

VOMITING OF BLOOD.

It very rarely occurs before the age of puberty. The paroxysms last for a longer or shorter time according to the violence of the affection, and return periodically in many instances, and may be brought on by partaking of improper or unsuitable articles of diet, or, in some cases, by any solid food whatever. This disease originates in an unhealthy state of the nerves of the stomach; the exciting causes are: long fasting between meals, very hot or cold drinks, the habitual use of ardent spirits or of indigestible food, worms, and, in some instances, exposure to cold or damp weather. The chief articles to be avoided by persons subject to these cramps are: crude, raw, uncooked vegetables, salads, cheese, new bread, sweetmeats, cherries, nuts, olives, roasted chestnuts, and stimulants of all kinds, whether tea, coffee, alcoholic or fermented drinks.

TREATMENT.

Nux vomica or strychnine is relied upon as in the main the most effecient remedy for spasms of the stomach in dyspeptic persons. The more immedi-

ate symptoms to which it is applicable, constriction, pressing, squeezing or actual spasm of the stomach accompanied with a sensation as if the clothing was too tight above the waist, as if the wind were pent up in the sides beneath the lower ribs. This sensation as well as the pains before mentioned become generally increased after a meal, partaking of coffee, in addition to which a feeling of depression or constriction is experienced at the chest, which in many cases extends to between the shoulders and the lower part of the back. Frequently also there is nauseau and accumulation of clear water in the mouth, or risings of sour, bitter fluids, attended with a sensation of burning in the throat and gullet called

HEARTBURN.

The tongue is tremulous, cracked and fissured, clean, of a vivid red, coated yellow or covered with a white mucus; lips and gums, white, red or swollen; lips yellowish, blended and somewhat hardened; eyelids inflammed at the margins; sour or putrid taste in the mouth; vomiting of crude materials; flatulent distension of the bowels; constipation; aching in the forehead; palpitation of the heart and anxiety. When these symptoms are

liable to be excited by a fit of passion, or become aggravated in the morning, or when the patient is occasionally wakened out of his sleep by the spasmodic attack, *nux vomica* is more certainly indicated. Dose in several cases of recent orgin: three globules in a teaspoonful of water every three hours, until amelioration or change. In chronic cases more or less acute pain after every meal: a solution of six globules to two tablespoonfuls of water, give a teaspoonful every evening until the whole is consumed, or, in the like proportion, until positive amelioration or change. When the spasm of the stomach returns periodically, or when from some imprudence in diet there is reason to apprehend an attack, three globules should be taken in a teaspoonful of water, three hours before the recurrence of the symptoms, or in the latter case, immediately after the possible cause has transpired. This rule applies in respect of any of the remedies prescribed which have been administered with success in former attacks. If there is only temporary relief, followed by more intense suffering continuing three hours after a second dose of nux, take carbo vegetalis: three globules in a teaspoonful of water every night and morning for four days.