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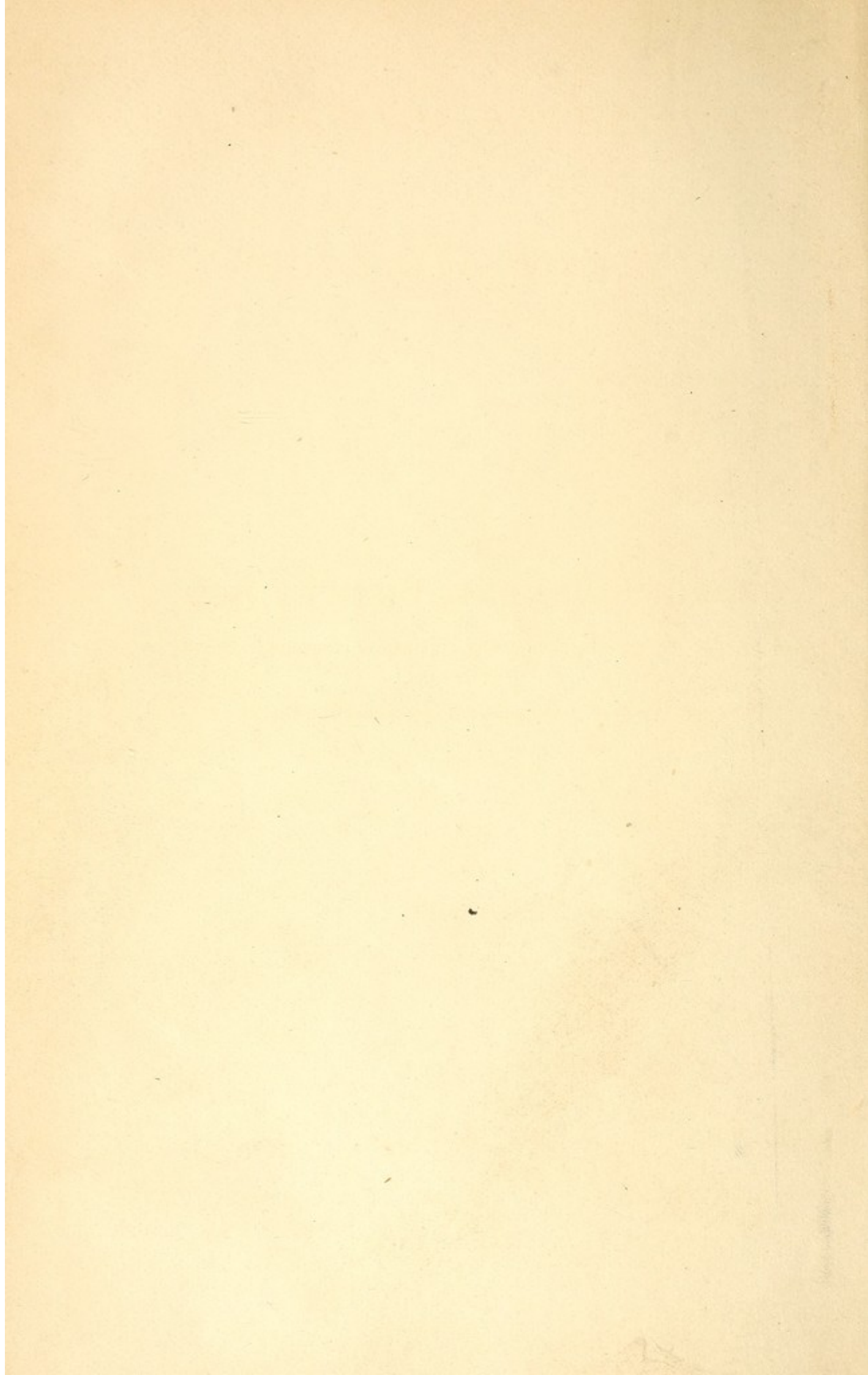
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COMMON-SENSE MANAGEMENT
OF THE STOMACH.

BY

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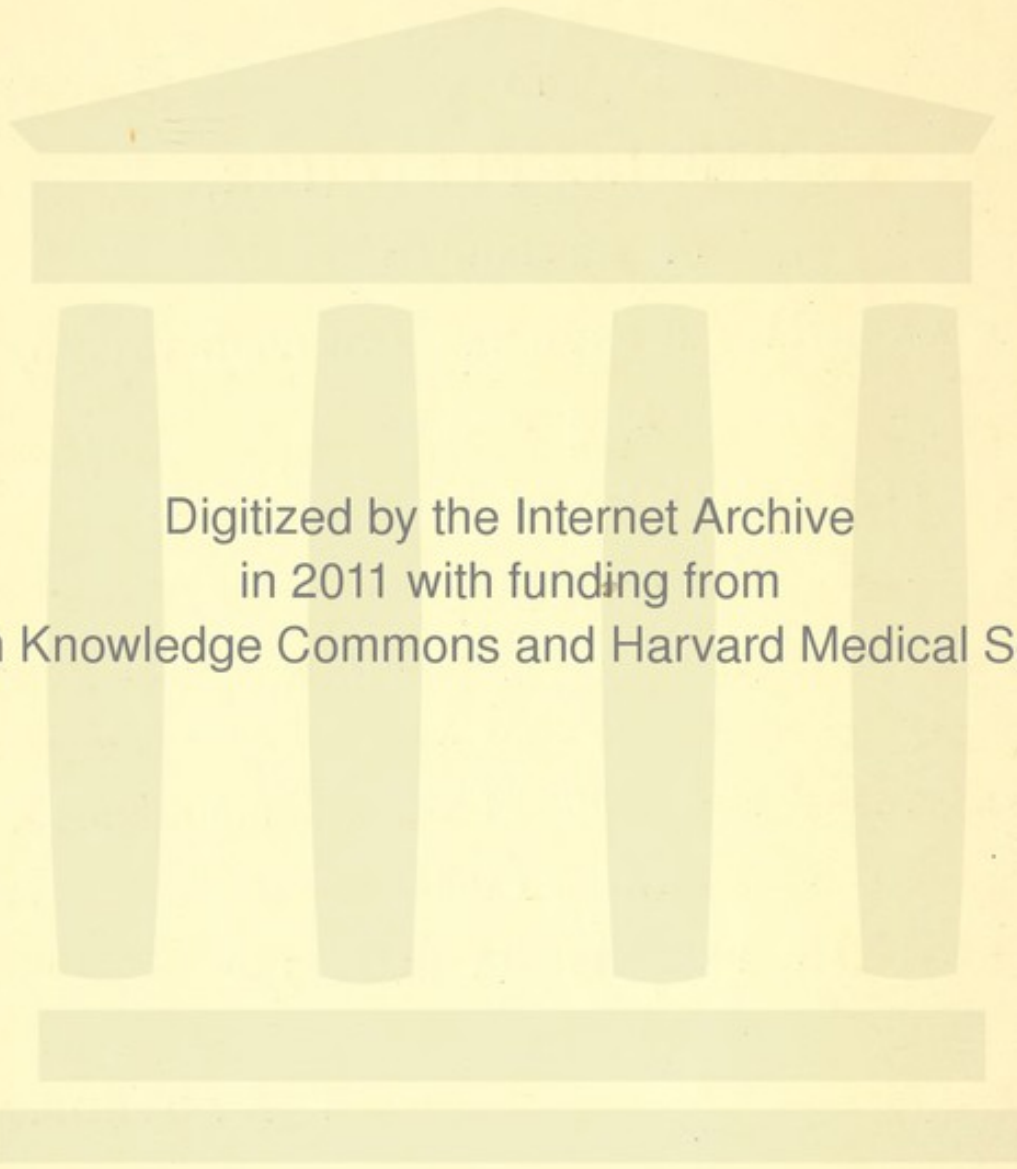
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TO
DR. BELL FLETCHER,
OF BIRMINGHAM,
THE ACCOMPLISHED PHYSICIAN AND GOOD FRIEND,
AS A TOKEN
OF APPRECIATION OF HIS CHARACTER,
AND IN REMEMBRANCE
OF VALUABLE PROFESSIONAL ASSISTANCE,
DURING A
SEVEN YEARS' RESIDENCE IN THE NEIGHBOURHOOD,
THESE PAGES
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PREFACE.

IN these days of doubt and unbelief, the exponent of any new theory is met by constant rebuff, and even should he succeed in obtaining an assent to the correctness of his views, it is only on the basis that "they may do for the present"—"they are more rational than the last," and will be accepted by some until a theory more advanced shall take their place.

But the true student, the man of science, is content to work on patiently, even though history shews him that his pet theories must be broken down, and yield their place to others, because he hopes to furnish another round in the ladder of science, without which no further advance could be possible; and even if he do not attain to absolute truth, the nearer approach to it which

he may be instrumental in gaining must prove of benefit incalculable to his fellows.

In offering this little work to the public, I have not even the satisfaction of knowing that I have achieved an advance on the received ideas of some observers in connection with the treatment of stomach diseases; my object has been to present the most rational views of the present day upon the subject, modified doubtless by my own experience, the result of the careful observation of fourteen years; and, in carrying out this object, I have been anxious to avoid any interference with the function of the physician. I have made no attempt to furnish prescriptions for self-treatment in cases which demand professional assistance, but rather, by simple description of the nature and functions of the stomach in health, and the symptoms of disease, to dissipate the haze of ignorance which now enshrouds the subject, and thus to enable sufferers from this large and increasing class of diseases to *manage* themselves on rational principles, and carry out effectively any medical treatment which they may find necessary. And I am emboldened in my endeavour by the belief

which I hold, that the time has arrived when the true value of the physician to the public will be more widely felt, the more information he affords on the nature and treatment of disease ; inasmuch as when the principles of treatment are understood, the difficulties also will be realized, and the work done by the physician will be more appreciated, and his aid more frequently sought ; whereas, if he shrouds himself in a kind of halo of mystery, however great the impression may be on the minds of the ignorant and uneducated, the respect of the better-informed classes is lost, because they know that physicians, like clergymen, are but men ; that they possess no wondrous powers of healing other than those which careful research and patient watching at the bedside has conferred upon them ; and that only the years thus spent by them, after the necessary training has been undergone, enable them to exercise controlling influence over disease in all its varied forms.

This is the true stand-point of the physician. When he says to his patients, I have devoted so many of the best years of my life to the careful

observation of the processes of health and disease, it is obvious that he is capable of affording valuable service to those whose experience has been confined to the ailments of themselves or their families. Again, if a physician devotes himself specially to the treatment and study of a certain class of diseases, and thus has infinitely greater opportunities of obtaining knowledge in healing this particular class of ailment than one who takes all cases as they come, he must, I think, be admitted, with ordinary intelligence, to be better able to give advice on this subject than the general medical attendant. This is the only plea for specialism in medicine or surgery, but I believe it to be a sound one; and although the profession as a body decry it, the public, who do not in the aggregate make many mistakes in judgment, are slowly but surely giving their verdict in favour of special practice; and I unhesitatingly affirm that I myself, if I had a relative suffering from any dangerous malady, would assuredly seek out a man who made that class of disease a subject of special study, and obtain his advice, and with all due respect, I think most of my professional

brethren, under similar circumstances, would act in precisely the same manner.

On the other hand, when physicians assume superior powers, and with mysterious looks and ambiguous replies, interspersed with unintelligible jargon, and backed up by pieces of paper covered with curious hieroglyphics, inspire beholders with a feeling of awe and wonder at the extent of their marvellous powers, they cannot complain if, when death has proved the vanity of their pretensions, they meet with the contempt which they so richly deserve; whereas the feeling left in the minds of the survivors of one who has been taken away, in spite of the efforts of the kindly honest physician, who at no time during the illness has been averse to explain its nature and the indications for treatment to the friends of the patient, is one of admiration at the sagacity which, although unsuccessful in its final result, enabled him to battle with disease, and ward off for a time the end, and sincere esteem for the patience and true kindness evinced, without any assumption of superior powers, whilst placing his store of knowledge freely at the service of his patient.

The day of gold-headed canes and eccentric dress, with other attendant paraphernalia of humbug, has passed away, and the members of the profession are beginning to learn that there is no danger of lessening the esteem in which they are held by imparting information to the public; on the contrary, that the real danger lies in the assumption of powers which they do not possess, and the disappointment which the unsatisfactory result of their vaunted skill so often entails.

Having said this much, it will be understood that I have only followed out my own convictions in writing this book, to afford information to the public, on a subject which I have for some years made one of special study, although not to the exclusion of other diseases, believing as I do that a knowledge of the processes of disease in general is necessary for the successful treatment of any in particular, and I feel convinced that in so writing I am in no way doing anything derogatory to, or lowering the standard of, the profession, but that, on the contrary, I am doing good service by showing that I am not afraid to place the public in possession of my principles of treatment; and

so far from entertaining any fear of the result, I am satisfied that when they have possessed themselves of all the information contained in these pages, they will still feel that we are better able to deal with severe cases than they, and the vital importance of obtaining special advice will be the more apparent.

25, QUEEN ANN STREET,
CAVENDISH SQUARE,
May, 1875.

CONTENTS.

	PAGE
THE STOMACH IN INFANCY - - - - -	I
Milk of various kinds - - - - -	3
Teething - - - - -	8
Sickness - - - - -	10
THE STOMACH IN CHILDHOOD - - - - -	14
Worms - - - - -	15
Convulsions - - - - -	16
Feverish Attacks - - - - -	17
The Food of Childhood - - - - -	19
Time for Meals - - - - -	21
Exercise and Rest - - - - -	25
Education - - - - -	27
THE STOMACH IN YOUTH - - - - -	28
General Management - - - - -	28
The Food of Youth - - - - -	36
Exercise - - - - -	38
THE STOMACH IN MATURITY - - - - -	39
General Remarks - - - - -	39
Symptoms of Disease - - - - -	40
Description of the Stomach and its Function - - - - -	41
Diagram of the Stomach - - - - -	42
Pain as a Symptom of Disease - - - - -	44

	PAGE
Vomiting - - - - -	46
Hæmorrhage, or Bleeding from the Stomach - - -	50
Various forms of Dyspepsia or Indigestion most common	51
<i>First Division :—</i>	
(a) Plethoric or Active Dyspepsia - - - - -	52
(b) Anæmic or Passive Dyspepsia - - - - -	57
(c) Fermentative Dyspepsia - - - - -	60
(d) Pyrosis or Water-brash - - - - -	62
<i>Second Division :—</i>	
i. Hepatic Dyspepsia - - - - -	62
ii. Renal Dyspepsia - - - - -	64
iii. Rheumatic Dyspepsia - - - - -	65
iv. Gouty Dyspepsia - - - - -	66
v. Syphilitic Dyspepsia - - - - -	67
vi. Strumous Dyspepsia - - - - -	68
vii. Tubercular Dyspepsia - - - - -	68
viii. Mechanical Dyspepsia - - - - -	69
ix. Sympathetic Dyspepsia - - - - -	69
Food, Solid - - - - -	71
„ Fluid - - - - -	79
Wines, Spirits, etc. - - - - -	81
Tea, Coffee, Chocolate - - - - -	88
Aërated Waters - - - - -	89
Water - - - - -	90
Milk as a Diet - - - - -	94
General Observations on Diet - - - - -	96
Exercise - - - - -	97
Tobacco - - - - -	98
Bathing - - - - -	103
Different kinds of Baths - - - - -	105
Hot-Air Bath - - - - -	106
Vapour Bath - - - - -	106
Turkish Bath - - - - -	107
Cold Bath - - - - -	108

	PAGE
THE DECLINE OF LIFE - - - - -	110
General Management - - - - -	112
The "Change of Life" - - - - -	115
Medicines useful - - - - -	118
OLD AGE - - - - -	119
Nursing - - - - -	119
Diet - - - - -	119
Management of Functions - - - - -	121
HEADACHE - - - - -	122
CONSTIPATION - - - - -	125
APPENDIX, containing Simple Forms for Useful and Safe Medicines - - - - -	131

COMMON-SENSE MANAGEMENT OF THE STOMACH.

THE simplest mode of treating the subject will be to divide it into periods: 1. Infancy; 2. Childhood; 3. Youth; 4. Maturity; 5. Decline of life; 6. Old age.

THE STOMACH IN INFANCY.

As during the period of infancy a much larger proportion of food, compared with the weight of the body, passes through the stomach for the purposes of growth, than at any other period of life; so it is of greater importance that the quality and kind of food provided for the infant should be the best obtainable, and that, during this period, is the food which Nature provides for her animal offspring; viz., milk. All other "foods" so called are not to be thought of for one instant. If the

mother cannot suckle her child, the best milk obtainable, diluted with a little water, and sweetened with powdered sugar crystals, should be given in regular and proper proportions during the twenty-four hours. The reason for this may be readily understood : in milk, whether mother's milk or cow's milk, are all the constituents of food, animal and vegetable, in a state ready for absorption and assimilation, whereas the bulk of all the vaunted infant's foods is only one of the elements necessary to make up a true food, and this in a form which it is quite impossible for the infant's stomach to digest, namely, starch. Let it be understood and remembered that young infants cannot digest starch, and that if an infant be fed entirely on these so-called foods, without milk, it will surely die ; and when fed upon the food and milk, it is nourished only by the milk, and not by the food, which is therefore not only of no value as a nutrient, but of the most deadly effect as an obstructive and irritant. The term "starch" includes all the different kinds of flour, rice, sago, tapioca, arrowroot, potato, etc., etc., which are starchy foods, viz., chiefly composed of this substance. I mention this because the uninitiated might suppose that I mean the ordinary washing starch, when speaking of this, to the more advanced animal, important element of food.

VARIOUS KINDS OF MILK.

As I have said, the only proper food for an infant is milk, and care ought to be taken that the supply of milk should be as good as possible. If the breast milk be used, the health of the mother requires careful watching ; and a light but nutritious diet should be adopted ; and if the supply of milk be inadequate to the demand, a free allowance of porter or light bitter ale should be taken ; in cases where the stomach is intolerant of these, a glass of good dry champagne or claret will be found serviceable. Alcohol, in the form of brandy, whisky, etc., ought not to be taken, except under medical advice.

THE MILK OF COWS, ASSES, GOATS, ETC.

In cases where the mother cannot suckle her offspring, other milk must be obtained, but not until steady persistence, under medical supervision, for at least a fortnight, has proved that there is not sufficient accessible milk in the breasts. I say accessible, because I have sometimes been obliged to dry up the milk, where the breast has been full, owing to the peculiar formation of the nipples ; but I am happy to say that this does not often occur, and generally perseverance in drawing the breasts with a piston pump will succeed in bringing out the

nipples, so that the child will take them. If there is reluctance or inability, as there often is in a young infant, to get the milk from the small, hard, or retracted nipple, it is useful to obtain the services of an older child to draw them, as the act of suckling causes an increased secretion in the breast. Care must be taken that the breasts be thoroughly emptied at least once every day; and should the infant not do this, it ought to be done by the nurse, with a breast pump.

I am particular in mentioning these details, because I am convinced that it is of the highest importance both to mother and child that suckling should be properly carried out; and I have no hesitation in saying that idleness, carelessness, and ignorance are the causes of a very large number of children being brought up by hand, when there in reality has existed no necessity for such an unnatural proceeding. If, however, it is not considered advisable for the mother to try to suckle her offspring, two modes of rearing the infant present themselves — wet-nursing and feeding by hand; and although the former may appear to the mind of a mother, disappointed in not being able to suckle her child, the more tender course to pursue, still, when we take into consideration the difficulty in first obtaining a suitable wet-nurse, and next the difficulty always found in regulating her health,

keeping her under proper supervision, and avoiding the consequences of the free indulgence which usually follows the introduction into a well-kept establishment of a woman who perhaps has never had such opportunities before; taking all these matters into consideration, and also remembering the highly satisfactory results which have been obtained during the last ten years from the use, with proper care, of feeding-bottles, I unhesitatingly affirm that feeding by hand is far the better course to pursue, the main points requiring care being to secure a regular supply of good milk, to dilute this with water, and not to give a larger quantity at each meal than is readily digested. The greatest care is necessary to have the milk as fresh as possible, and to provide several bottles for feeding, so that those not actually in use may be thoroughly scalded and placed in cold water until they are again required. In some cases, doubtless, cows' milk does not appear to suit, and that of asses or goats may be used with better effect; but for all ordinary purposes the milk of young and healthy cows, grass-fed, when mixed with warm water, in the proportions of two-thirds of milk to one-third water, sweetened slightly, and given in a feeding-bottle, is the best food that can, in the absence of the mother's milk, be given to a young infant. In the winter, when cows are stall fed, the milk is

poorer, and, especially where turnips are given, liable to cause flatulence or wind in children fed upon it. Under these circumstances the Swiss or condensed milk is preferable ; I have often seen cases of disordered stomach in infants yield directly this change has been made, after all other remedies have proved unproductive of benefit.

There is a popular idea that some peculiar virtue attaches to the milk from one cow, and no doubt, if that cow be a young one, say, with her second calf, her milk alone is better than milk from many cows, inasmuch as that is the best milking period of a cow's life, and one cow is more easily kept under observation than many ; but, apart from these considerations, I do not attach much importance to the idea ; indeed, I have reason to know that many parents deceive themselves on this point, and fancy because they pay an extra penny per quart for milk, that they get it unmixed from one cow. I would advise them to be content with the mixed milk as long as milk only is used in the mixing ; and if the quality be not satisfactory, to change the dairy.

The times at which infants should be fed must be regulated by individual necessities. A young child will require food every two or three hours day and night : the frequency of feeding necessary will soon be ascertained, and care must be exercised to

avoid a very common mistake, viz., the giving of too large a quantity at each meal. As a rule, from half to two-thirds of a bottle of the size of an infant's ordinary feeding bottle will be amply sufficient, a larger quantity is frequently rejected in a curded form, whereas the smaller quantity is generally retained. Crude, half-digested milk is a very frequent cause of convulsions in infants, as evidenced by the hard masses of curd thrown up when vomiting is excited. This brings me to the subject of *vomiting in the infant*; and it must be remembered that although this is a symptom of distension, and sometimes indigestion, not to be overlooked, still it does not possess anything like the importance which attaches to it in after-life in forming a correct diagnosis or opinion upon the true nature of a case. The ease and readiness with which children vomit is a fact well known to those who have ever tossed an infant in their arms, a slight bubble of wind or hiccough being sufficient to throw up a portion of the contents of the stomach, and a very slight over-distension will produce this result. Mechanically, of course, any disorder of stomach from acidity, wind, etc., necessarily increases the disposition to vomit; and the irritation produced by the presence of curded milk causes vomiting as a simple natural act to get rid of that which produces pain and distension.

TEETHING.

Teething increases the disposition to vomit, both by upsetting the natural secretion of the stomach, and so causing wind, and also by irritating the nervous centres, which produces vomiting as a reflex action. Indeed, frequent vomiting is often the first thing which draws attention to the fact of the child's illness, and the cause of the mischief is often traced to a tooth just pushing through the hot, dry, and swollen gums. The remedy is obvious,—namely, lancing them freely; and in spite of any old woman's tales to the contrary, I wish that every mother had a gum-lancet, and knew how to use it when required; for after many years' experience of children, I can affirm that I never knew a single instance of injury to a child from lancing the gums, but I have known many where children have died from the want of it. The almost instantaneous relief which follows, the quiet sleep, the coolness of the mouth, the subsidence of all sign of convulsions, the altered character of the secretions, and the moist and cooler skin, all demonstrate, to any one who notices them, the incalculable value of the gum-lancet. When a mother's attention is directed to this subject, there is no difficulty in ascertaining which is the troublesome tooth. The lancing is then very simple, the

only care necessary being to shield the cheek and tongue with a finger on each side of the tooth to be operated upon, and then to rapidly make two or three incisions through the gum, on to the tooth. The scratching of the lancet upon the tooth will be readily felt and recognised: it is best to make the incisions crossing each other. There are some people who have been known to rub a child's gums with a piece of sugar or the edge of a coin—to *file* the tender gum, in fact—in preference to the instantaneous and almost painless relief of the lancet. I hope that no mother who reads this book will be so weak as to sanction such a brutal proceeding. It must not be forgotten that until a child has cut its teeth it will be especially liable to convulsions, diarrhœa, and mischief in the chest; many children are said to cut their teeth with a cough, others again suffer from diarrhœa, with green, watery, and offensive evacuations, going on sometimes to dysentery, and attended by sudden collapse, so sudden in some cases as to baffle all attempt at reaction.

Rapidity is the type of all children's diseases: they become ill rapidly, they mend rapidly, and they die suddenly: it is of special importance therefore, in their case, that the first symptoms of disease shall be noted and acted upon. Disordered stomach is an accompanying symptom in all their complaints,

and will require modified treatment in different ailments; but no improvement can be expected from the use of drugs, as long as the source of irritation, in the shape of a tooth pushing through the gums, is overlooked, and remains unrelieved. This is a matter which it is the duty of the nurse to ascertain, and her finger ought to go into the infant's mouth once or twice every day, when, if the gums are moist and cool, she may rest assured that if the stomach is upset it arises from some other causes—these are frequently found to be unsuitable food, or feverishness from cold, etc.

SICKNESS IN INFANTS FROM CAUSES OTHER THAN DENTITION.

Vomiting in the infant is often the result of improper food or of the milk disagreeing; the remedy is obvious, viz., to change the food. This vomiting is often accompanied by constipation from the curding of the milk, and distension of the lower bowel; the proper treatment for this is to clear out the bowel gently with an india-rubber enema syringe and warm water, or oil, or thin gruel; and having removed the hardened secretions in that manner, a tea-spoonful of castor oil may be given, and repeated in four hours' time, if it does not pass through the bowels during that period; this mode of treatment will often suffice to arrest the vomit-

ing. Here, perhaps, a few words on the use of castor oil may not be misplaced. Castor oil is a favourite remedy with mothers and nurses, because it is considered so safe, and not without reason ; it is also highly useful as a mechanical lubricant for the removal of hardened matters from the bowels ; it should be given as soon as their presence is detected ; but it almost invariably causes constipation after its purgative action has subsided, by removing the mucus which lines the bowels and favours their action, so that the frequent use of castor oil in any quantity is objectionable. In cases of diarrhœa caused by the presence of irritating matters in the bowels, a dose of castor oil, by removing these speedily, acts like a charm ; but if the diarrhœa proceeds from other causes, its use is attended by great danger, especially in young infants. I have on several occasions been called to see infants in a state of collapse, from the effects of a dose of castor oil ignorantly prescribed for diarrhœa, and which so intensified the urgent symptoms, as to cause death, in spite of every effort to the contrary ; so that it may be laid down as a rule that castor oil is unsafe in cases of disordered stomach, when accompanied by diarrhœa ; but where there is constipation, it may be given with perfect safety, when the lower bowel has been cleared by an enema, as before pointed out.

The absence of sufficient healthy bile in the bowels is at once the cause of disordered stomach and constipation ; for it must be remembered, in grasping the idea of the mode of vital actions, that the bile is the natural purgative of the bowels ; when therefore it is insufficient, absent, or excessive in quantity, a corresponding condition of inaction or excessive purging is the result : this purging is what is generally called bilious diarrhœa. When, from the pasty or white colour of the evacuations, we find that healthy bile is not being poured out into the bowels in sufficient quantity, we know that either there is some obstruction to the flow of bile, or that the liver is not performing its normal function with healthy vigour. In the case of children, a little grey powder, combined with a small quantity of rhubarb, and repeated every alternate night, for two or three times, will usually suffice to produce copious bilious stools.

There is one very important fact which renders frequent vomiting a sign of great importance, and that is its constant existence when mischief is commencing in the head, as in hydrocephalus, or water on the brain. Care must be taken not to mistake a symptom for a disease, and it must never be forgotten that vomiting is always present in disease of the brain, whether strumous or from injury.

Before quitting the subject of vomiting in infants

I would draw attention to the necessity of exciting it by emetics under certain circumstances. If a child suddenly appears feverish and unwell, with flushed face, white or furred tongue, and heavy eye, a tea-spoonful of ipecacuanha wine, sweetened with sugar, should be administered, and repeated every ten minutes, until vomiting is freely excited ; this is much encouraged by the copious use of warm fluids. The contents of the stomach so removed often cause wonder at the ability of a child to retain such hardened matter in the organ at all, and its removal is always followed by relief. Medical aid should be sought in all such cases, but during its absence no time must be lost in obtaining a thorough clearance of the contents of the stomach ; by taking the initiative in this the mother merely anticipates the wish of the doctor, and does what he would assuredly do if present.

In the appendix will be found a few simple formulæ for immediate use, which may be kept ready made up in the house.

Passing through the period of feeding on pappy or semi-solid nutriment, such as is afforded by the use of a well-balanced farinaceous food—a period which may be said to commence when a child has cut most of his teeth, and to terminate when he is able to digest meat—we have now to consider

THE STOMACH IN CHILDHOOD.

THIS portion of the subject will comprise the period between infancy and youth; that is to say, the earliest period during which solid food ought to be taken, say from two to twelve years of age. This period is that in which attacks of stomach derangement are most frequent, caused in a great measure by the extraordinary mixtures which children, through the carelessness of nurses, manage to introduce into their stomachs. Ipecacuanha wine will be found most useful, and should be given in tea-spoonful doses until vomiting is freely excited, in cases where pain, feverishness, or distension are present. If this dose be not sufficient, a larger quantity may be given without fear of danger, since it is rejected as soon as vomiting commences; a few drops of sal volatile may be given after sickness has ceased, or a spoonful or two of brandy and water: these, acting as diffusible stimulants, relieve that condition of prostration which always follows prolonged or severe sickness.

One of the commonest causes of deranged stomach in childhood, as shown by capricious and depraved appetite, the feeling of constant hunger, and never being satisfied after food, a gnawing sensation at the pit of the stomach, etc., etc., is the presence of worms.

WORMS.

These are, perhaps, the most persistent pests of childhood, and the greatest care is necessary to ensure their entire removal; the costive habit of most children tends in a great measure to their multiplication, their nest being in the mucus which lines the bowel. The commonest kind are observed like little bits of thread upon the evacuations, and are called thread worms in consequence. The best family treatment for these is to give a smart purge, such as a dose of compound scammony powder; according to age, from five to ten grains will be an average dose; and if this be not sufficient, a dose of castor oil will usually succeed in bringing away a large quantity of these annoying inmates; but this will not always extirpate them, and it has been found that iron is peculiarly obnoxious to them. A mixture of one drachm of tincture of muriate (perchloride) of iron to half a pint of water, or infusion of quassia, one or two table-spoonfuls thrice daily, usually eradicates them for a time; but they return time after time, in some cases very persistently. A daily injection into the bowel of cold water, or better, one of an astringent character, as tincture of iron with water, will be found of great benefit.

Santonin and other drugs are used by surgeons,

but I am only dealing with the family management by simples, and these more powerful agents must only be used under medical advice. Cases of tape-worm or the lumbricoid or round worm always require special medical treatment, and invariably yield to it ; indeed, I do not know a more satisfactory cure in the whole range of medicine than the removal of a tape-worm and all its very distressing symptoms, which disappear as if by magic, when the proper treatment is carried out.

On the removal of worms, the whole aspect of the child is changed ; the white or sallow skin becomes clear and healthy, the pinched look of the face disappears, the appetite becomes natural instead of ravenous, and the child is contented after a meal, freed from the constant harassing of his enemies. So that when a child, without feverishness, suffers in a marked degree from disordered stomach, with capricious appetite, emaciation, pallor, and pinched countenance, and sometimes enlargement of the belly, the presence of worms is to be suspected, and the evacuations daily examined.

CONVULSIONS.

It is scarcely necessary to point out that children, from the delicacy of their constitution, are peculiarly liable to convulsive attacks, in which medical aid

must always be immediately sought. The ready treatment for these before medical assistance arrives is to place the child for ten minutes in a hot bath, to lance the gums, if they are hot, dry, or swollen, and to excite vomiting by tickling the throat with a feather, or, if the child can swallow, to give a full dose of ipecacuanha wine, followed by warm water. This plan should be adopted the moment a child looks livid or dark round the mouth, turns up its eyes, or shows other signs of approaching convulsions. If the convulsions are very severe, and the surface of the body and extremities cold after the hot bath, mustard to the feet and calves, and back of neck or chest, may be applied with benefit.

THE STOMACH DURING FEVERISH ATTACKS.

Derangement of the stomach, as shown by foul tongue and fetid breath, accompanies almost all feverish states, whether from the more serious approach of scarlet fever, measles, etc., or from simple cold, which is only a mild form of fever. The safe treatment in all these cases is an emetic to commence with, followed one hour after vomiting has ceased by an aperient powder; after which, if the feverish symptoms continue, evidenced by heat and dryness of skin, flushed face, restlessness, etc., the febrifuge mixture No. 5 in the appendix should be given, in doses according to age, every

two, three, or four hours ; and should these means fail to relieve, medical aid must be obtained. The hot bath, from 96° to 110° , will be found of service in these cases, as in convulsions ; it lowers the temperature, opens the pores, and moistens the skin. Sponging the surface of the body once or twice a day with warm water or vinegar and water is most grateful, and at the same time beneficial and perfectly safe, in all fevers, in the treatment of which no greater mistake can be made than (as many do) to exclude most carefully water, and even air, from the sufferer. A moderate temperature only, with free ventilation, the window properly screened off from the bed, being open at the top, and daily sponging of the patient with warm water, not only is infinitely more agreeable, but furnishes a better prospect of recovery from any fever, without severe after-consequences, than any other system which has yet been adopted.

There are two other causes of vomiting in children, which must not be overlooked, viz., blows on the head and sudden fright, either of which will cause instant vomiting, without any disorder of the stomach, or indigestible matters being present in it. It is obvious, therefore, that care must be taken to ascertain the cause before proceeding to interference in the shape of treatment. I have now mentioned the principal causes

of derangement of the stomach in childhood, and the management of each ; perhaps the commonest cause of all is improper food, so that whilst care and watchfulness are necessary to treat attacks of illness with promptitude when they arise, it is also necessary to keep the body in health by a well-regulated system of life, as regards feeding, bathing, exercise and rest, and education.

THE FOOD OF CHILDHOOD.

Passing from the stage of suction, through that of pappy or semi-solid food, we now come to that of solids in combination with other softer matters, for the proper grinding or mastication of which Nature has provided the child with appropriate teeth. It is unnecessary to enter into a detailed description of the teeth, but a cursory glance at their varied form and arrangement will suffice to prove that which common sense would indicate, viz., that a diet composed of flesh and vegetables, together with the various forms of flour or starch and gluten, is that which Nature has intended for us. Now, on considering the question of the diet of children, it will be readily granted that a child does not require meat so often or in such large quantities as an adult ; so that whereas a grown person may require meat twice a day, a child seldom ought to have it more than once, but the meat which it

does have ought to be hot and fresh cooked, this being more nutritious and easily digested than cold meat ever is. I do not mean to assert that all children positively require hot meat every day: a fine pure air, and an outdoor existence in it, will make a child stronger and thrive better on cold meat, than the inhabitants of close neighbourhoods do on hot. But parents ought to try and provide their children with a meal of hot meat every day, and if not fresh cooked, at least made hot with good nourishing gravy. This should be followed by some light farinaceous pudding, such as milk rice, plain boiled rice, sago, tapioca, bread-and-butter pudding,—any of those simple but delicious puddings which mothers know so well how to order or make. Apples cooked in any form are most wholesome and valuable for children, forming a mild laxative; indeed, all kinds of fruit are more wholesome cooked than raw. When plums or stone fruit of any kind are used, care must be taken not to allow the skins to be eaten: I have seen many attacks of diarrhoea and even convulsions clearly traced to the irritation of the tough and acid skins of fruit. When fruit is out of season, good jam, honey, or treacle are all generally liked, and are good for children. Cheese ought never to be allowed, nor should wine be given; it is too heating, is unnecessary, and excites the delicate brain in

an injurious manner. If children are ordinarily strong, and their surroundings healthy, water filtered and plain, or made into toast water, is their proper beverage. It is absolutely necessary that water should be *boiled* before filtering, in order to dispose of dangerous matters. I wish particularly to draw attention to this *fact*. All the filtering in the world with new filters will not get rid of poison held in *solution*. Filtering merely retains in the filter the matters suspended or floating in the water; these, although doubtless unpleasant to the eye, are frequently much less dangerous than the poison fraught with death which lurks in water the most limpid and sparkling. The only safe plan, therefore, is to boil all water for drinking, and then to filter; this disposes of all impurities. Of all raw fruit, strawberries are perhaps the most wholesome; apples and pears and stone fruits the most difficult to digest. Care must be taken to select fruit thoroughly ripe, and to remove the skin.

TIME FOR MEALS, ETC.

The best time for children to dine is one o'clock, the only other meals admissible are breakfast about 8 a.m. and tea at 5 p.m. If hunger demands food between these times, a piece of plain bread cake, with a cup of milk, will well supply the want. For breakfast one of two articles ought always to be

given, viz., oatmeal porridge or bread and milk. The oatmeal requires boiling and stirring for from half to three-quarters of an hour, in order to break up the starch, and convert it into dextrine, in which condition only can starch be digested in the stomach. In making bread and milk, it should be boiled up in a saucepan, and then allowed to stand on the hob for half an hour to thoroughly cook. Whether bread and milk or porridge are taken, a pint of new milk ought to be consumed at breakfast, and a like quantity at tea, after which, if they want it, a small quantity of weak tea or coffee, with milk, and a bit of bacon or an egg, may be allowed, but not until the porridge or bread and milk has been finished. For tea a little honey or preserve is often liked, and is not unwholesome. The practice most to be avoided is that of giving children sweets in the intervals between meals, and thus interfering with the process of digestion or the rest necessary to prepare for the reception of the next meal. And the same may be said of older children. They, too, may indulge to a considerable extent at table, without injury, provided that no food, solid or fluid, be taken in the intervals between meals. I feel convinced that nothing produces dyspepsia so much as the habit of constantly taking food into the stomach.

Having thus drawn attention to the chief points

of importance in connection with the food of children, we will pass on to another subject of vital importance to the well-being of the stomach, viz., the skin; and I have only to mention that on the surface of the skin there are millions of pores, or minute tubules, which exhale or breathe out moisture in the perspiration, to the extent of double the amount disposed of by the lungs in the twenty-four hours, to show at once the important part played by the skin in the animal economy. It is well known that if you prevent a man breathing, he dies from carbonic acid poisoning; that is, the carbon or charcoal, which is the result of the combustion process called life, is retained in his blood, instead of being exchanged for pure oxygen in the lungs. The blood so laden with carbon ceases to stimulate the nervous centres, by means of which circulation of the blood is carried on through the pumping of the heart; and unless this condition is soon relieved, and free oxygenation of the blood takes place, the stagnation or permanent arrest of vital action, called death, occurs. But it is not so generally known that the skin also *breathes*, and actually in the *scavenging* process, that is, the disposal of refuse, performs so important an amount of work. If this be once thoroughly realized, there will be few, I think, who will not pay the greatest attention to their own and their children's skins, to see that the pores are not

clogged with evaporated perspiration. In the case of infants I recommend a tepid bath with soap twice daily, and for older children a tepid or nearly cold bath every morning, and a hot bath at night once a week, or oftener if possible, but always at bedtime. Cold baths ought always to be taken in the morning, and hot baths at night. In giving cold baths to children, great care must be taken that the child does not remain in the water too long, or reaction will not follow the shock; the child shivers, the limbs are cold and numb, and as a necessary result congestion of the brain or internal organs results. The circulation of the blood is ever varying in force at different times in different situations: we may take as an example of this the feeling of cold experienced when the blood is driven from the surface by the shock of cold air or water; after which, if the shock be not too severe, or too much animal heat be removed from the body, the blood rushes back like a wave, as it were, to the surface, and a most delightful glow is the result, whilst during the process the nerves concerned in carrying out these phenomena receive a healthy stimulus. It may be accepted as a rule that two minutes is quite long enough for a child to remain in cold water. And in winter, when the water is much colder than in summer, if the chill is not taken off by the addition of a little warm

water, a plunge in and out is all that ought to be permitted : where this cannot be carried out, a sponging bath can always be obtained ; and I wish particularly to impress upon mothers the necessity of cold or tepid bathing, if they wish to see their children well nourished by their food. After drying, a rough towel should be briskly rubbed all over the body, and particularly down the back, and the child will be ready to enjoy his breakfast as soon as he comes from the bath.

EXERCISE AND REST.

If the weather be fine, children ought to take daily exercise out of doors ; those children are invariably most healthy, and digest their food best, who live almost entirely in the open air. Care must be taken to prevent too violent exercise, especially under a hot sun, children being especially liable to attacks of congestion of the brain, often very serious in their results. For this reason the head should always be protected, if a straw hat be worn, by a "puggaree" or sun bonnet, or the old-fashioned cabbage leaf in the crown of the hat or bonnet. The precise amount of exercise taken must be regulated by parents according to the *physique* of the child : three or four hours daily ought certainly to be spent out of doors, until the child is of an age to go to school, when so much time can

scarcely be spared for that purpose. It will be found that children who have not been forced at home, make more progress at school than those infant prodigies who have been at once the delight of their mistaken parents and the horror of every one else. All precocious children turn out feeble men and women, and the greatest minds have been found in those who as children have been considered backward for their age. In determining the amount of physical and mental work to be done, the regularity of nature ought to be sedulously copied, and regular intervals of rest between the periods of activity observed. The old adage, "All work and no play makes Jack a dull boy," is true, inasmuch as he becomes puny in mind, stunted in body, and priggish in disposition ; but if I were to supply a converse to the proposition, I might say, "All play and no work makes Jack a young Turk," because he lacks discipline and self-control, of all qualities the most difficult to obtain, and in which a child must be trained from earliest infancy; and so, in considering the question of education, as indeed in all others, "the happy medium" is that which we must strive to preserve. Change of air should be obtained as often as possible during the year, and sea air should be preferred, especially in the case of pallid children. The sea air, laden with its beautiful salts in minute subdivision, infuses new

life into the poor little weakling ; the dull eye begins to brighten, the pale cheek becomes tinted with colour, the appetite improves, the dragging step becomes elastic, and all these changes are produced by sea air. I may be said to be enthusiastic, but "we speak that which we do know," and I have experienced fully all that I have described.

THE EDUCATION OF CHILDREN.

This is a subject on which every parent holds different opinions, and it would be useless for me to do more than to point out the evil effects upon the stomach of too close or prolonged application, and, indeed, a similar effect is produced upon the whole system. It must always be borne in mind that the brain, through the medium of the sympathetic nervous system, exercises a most marked and important influence over the stomach, both as regards the desire for food and the capability of digesting it.

In the appendix will be found some simple forms of medicine suited for children.

THE STOMACH IN YOUTH.

THE next period to be considered is that of Youth, which may conveniently be fixed at from twelve years to twenty-five years of age; that is the entire period during which puberty commences and is completed, and the body attains its fullest development. I do not mean to say that no changes go on in the body after twenty-five years of age, but that it cannot be said to arrive at maturity prior to that period, at any rate in this country.

This is a period during which the first early impressions which are assumed to have been made by the mother in childhood are to be developed in that course of moral training so important to the physical as well as spiritual health of the individual. I will not wander into a disquisition on the moral requirements of the present day, further than to observe that the absence of a careful moral training has a far greater influence over the causation of disease, both of the stomach specially, and the body generally, than many people imagine; and it must be remembered that the freedom of thought and action which parents at the present day generally insist upon for themselves must not be accorded by them to their children, because they

have no landmarks, no beacon-lights to steer by, and, tossed upon a sea of apathy or infidelity, without a pilot, they yield themselves, ignorant of danger, to the winds of passion, and are inevitably stranded on the shore of retribution. This, perhaps, may be said to be what the Americans call "tall writing," but I will not alter it, as it expresses my meaning in as few words as possible.

The greatest care is necessary in youth to form the opinions by example as well as precept; for the young naturally imitate their seniors, and are not likely to acquire habits of self-control, when they have daily examples of its absence presented to them. And be it observed, this habit of self-control, regulating the desires and appetites by the light of reason, is of the greatest importance in restoring and maintaining health; without it all medical aid is valueless. Drugs may be discarded, and the only treatment affording a possibility of relief is the watchful care and restraint of an asylum. So that while I wish to point out all those means of physical culture at our command, such as the various forms of exercise, running, walking, riding, cricket, rowing, racquets, bowls, quoits, etc., in conjunction with plenty of cold water and friction to the skin, I would still also point out that a man developed to the utmost pitch of physical strength, without the controlling power of reason and the

sense of right acquired by discipline, is more dangerous than a brute, having all the ungoverned passions of a beast, coupled with the ingenuity of a fiend. One quotation should be always in the minds of the young: "Orandum est, ut sit mens sana in corpore sano," "We must pray for a sound mind in a sound body." In the matter of the stomach, the well-regulated mind and the approving conscience produce a desire for food and an activity of digestive power, the very opposite of that depression, and even nausea, which the mental irritation of annoyance or remorse, following self-indulgence, invariably causes.

We must not forget that the changes now going on in the development of the period of puberty are extremely trying to both sexes, and frequently produce a condition of general debility requiring special treatment, particularly in the case of girls; spinal curvature often showing itself from weakness at this time. As soon as this is observed, it must be treated by rest in the horizontal posture, so as to remove the weight of the head and shoulders as much as possible from the spinal column. This should be carried out for from four to six hours daily, in addition to the nine hours' rest on a mattress, which ought to be taken every night. Properly constructed reclining boards are made for the purpose, which admit of being placed

on a sofa or table, or on the floor; a firm horse-hair mattress, having a depression for the head, should be placed upon the board, and then the feet being gently supported against a foot board properly arranged, the delicate girl can read or work, resting her elbows on the mattress, with great ease and comfort, and by this treatment, assisted by tonics of mineral acids and iron, etc., coupled with attention to the secretions, health may usually be established, whereas the absence of it often produces permanent curvature and hysteria in all its thousand forms, and ultimately a condition of confirmed ill-health not to be overcome.

There is usually deranged or deferred menstrual function in these cases; and every mother ought to ascertain the regularity of her daughter's health in this important particular, for no benefit must be looked for until this is established. The stomach sympathises with the uterus to a marked extent, and vomiting is often the first symptom which directs attention to deranged menstrual function. I need not point out the absurdity of administering remedies to cure sickness, as long as the cause of the sickness remains unremoved. The proper treatment in these cases is, as a *sine quâ non*, cold water, and plenty of it; next, exercise in the open air; thirdly, a light and nutritious, but unstimulating diet; fourthly, companionship, no solitude,

but plenty of occupation for mind and body, and change of air and scene. These, properly carried out, will assuredly restore healthy tone to the stomach; the vomiting immediately after food will subside, the sallowness or pallor will give place to the ruddy glow of health; dull apathy and listlessness yield to activity and cheerfulness, obstinacy and anger are succeeded by docility and cheerfulness; in short, the action of the entire system is changed. Whilst these changes are occurring, in order to assist the healthy performance of the functions of the stomach, it is very important that the bowels should not be neglected; they almost invariably become torpid with inactivity of the body, and are correspondingly quickened in their action by exercise. If, however, this does not suffice to keep them in regular action, this end must be attained by means of a regular mild laxative, such as a tea-spoonful or two of castor oil daily, or the same quantity of sweet solution of senna or the fig electuary; this last is also particularly useful for the same purpose during pregnancy, as it keeps the bowels nicely open without any pain, and is not unpleasant to the taste. An occasional liver pill, No. 7 in the appendix, will be found highly beneficial, increasing as it does the flow of bile, which, as I have already pointed out, is the natural purgative of the bowels. It is as much to the increased flow

of bile, caused by exercise, as to the movement of the muscles of the abdomen, that the stimulus given by moving about is due. In women, from the peculiar form of the bony pelvis, or hip bones, there is a tendency to dilatation of the lower bowel, and accumulation there. This sometimes gives rise to much trouble, and is an obstinate cause of persistent constipation. The remedy for this is very simple, namely, to throw into the bowel a pint of warm water or thin gruel, with or without oil, every morning, with an india-rubber enema syringe, the use of which simple and comfortable apparatus is, I regret to say, much better understood on the Continent than in this country ; indeed, purgatives for torpor of the bowels in women are very little used abroad. In this we may profitably take a lesson from our neighbours ; for nothing can be more irrational than, for the relief of local accumulation, to give powerful medicines which necessarily affect prejudicially the entire system, when they are not required, whilst we have at our command a simple means of directly applying a local remedy for a local ailment, without the use of drugs at all. I wish to draw particular attention to this, because I am satisfied that a very large proportion of the fearful diseases and displacements of the womb, so common among women, have their origin in the neglect of the syringe, both as an

enema and as a vaginal douche. In taking a comprehensive view of the derangements of the stomach in youth, it should be remembered, that in girls almost every ailment they have is uterine in type; that is, connected more or less with the condition of the womb, which may be regarded as the main-spring of health or the fountain of disease during that period. And this will furnish a very important clue to many forms of derangement utterly intractable if it be disregarded or forgotten.

It is obvious that all pressure on the liver and internal organs must be avoided; and if stays are worn, they must not be drawn tight, but being nicely adjusted, should afford gentle support, fully admitting of the hand being passed under them when laced up. Constipation and displacement and subsequent disease of the liver are caused by tight lacing; the spine first is rotated or twisted, and afterwards becomes permanently curved, and all these conditions are caused by the very thing which loose stays properly adjusted would tend to prevent.

Now, having glanced at some of the chief sources of derangement of the stomach in girls during the period of youth, it will be easy to understand that in boys, during the period of the advance and completion of puberty, the generative organs exercise an analogous influence to that of the uterus in girls;

in them therefore we find almost all diseases more or less affected by the condition of these organs; and partaking of this character, no improvement can be anticipated whilst unhealthy conditions of these organs are present; for this reason it is necessary that supervision should be carefully carried out, as great deviations from health may exist, which from delicacy are not mentioned, and which, if not detected and removed, are the cause of the majority of the cases of debility in young men, which we are so often called upon to treat. These cases frequently prove very intractable, and in some instances are absolutely incurable before they reach our observation.

These disastrous results will never occur if the symptoms of derangement are recognised at the outset, very simple treatment only being necessary, coupled with an explanation of the influence of these organs over the present and future health, and a few easy rules for guidance and treatment, adapted for each individual case. I am not in any sense writing a treatise on the sexual organs; but any description of the ailments of the stomach during youth, without including in it this view of the subject, viz., the influence of puberty in both sexes, would be practically useless. In addition to these cases of derangement of the stomach through the medium of the nervous system, there

will of course be found others of a more purely local origin; these will be dealt with under separate heads in the next part, that of "maturity."

THE FOOD OF YOUTH.

The quantity must necessarily depend upon the individual requirements of each case, and the amount of wear and tear of tissue in exercise undergone, the quality must be as nutritious, light, and wholesome, and unstimulating as possible, and the diet essentially of a mixed character. Meat once or twice a day, with plenty of vegetables, light farinaceous puddings, with eggs and milk in plenty, and above all, the basin of oatmeal porridge for breakfast and supper every day. This, as I have before said, must be *boiled* and *stirred* for half to three-quarters of an hour, and eaten when the boiling has converted the starch into an assimilable form, with a pint of new milk, with or without a little butter added to the porridge, and salt in preference to sugar. Whatever else is eaten in the day, the porridge *must* be insisted upon; the health that it imparts, the muscle that it develops, are incredible, if not witnessed, as it has been by myself; and let me say, doctors will not have much to do when the infectious diseases are stamped out, as they will surely be by isolation, disinfection, ventilation, drainage, and pure water supply, and

when every man, woman, and child above two years of age fill their stomachs twice a day with oatmeal porridge.

For drink, a glass of light bitter ale or porter at luncheon or dinner may be allowed, but wine should never be given, unless specially ordered; it is unnecessary and heating. A full meal of solid food should never be taken later than four hours before bedtime; the porridge may be taken any time, as it is easily digested during sleep, and forms a bland and comforting meal. The hour for bed should be fixed as early as possible, and rising in the morning should be correspondingly early. All water drank should be boiled and filtered, and a mattress should always be used to sleep on: time enough for a feather bed and down pillows when aching limbs require their soft support; for young people they are enervating and objectionable.

The cold bath, which I have pointed out is a matter of the highest importance for girls, is no less so for boys, who should have a shower or sponge bath every morning, and a swim in a large bath, or better, the sea, as often as practicable; for this purpose every boy ought to be taught to swim as early as possible, and at the same time he ought to be taught that there is as much pleasure and benefit to be obtained by swimming in five feet of water as in fifty, and that to risk life wantonly by

swimming far out of depth is not courage, but foolhardiness, which frequently meets with the punishment it deserves.

EXERCISE IN YOUTH.

Exercise, whether walking, running, rowing, riding, or any of the athletic sports, should always be gradual and progressive in amount, and never violent, except perhaps in some few instances in which a natural muscular development has been brought, by careful training, to the highest pitch of perfection, and in these cases even the exertion cannot safely be prolonged. The human body is capable, under certain conditions, of bearing a great strain for a time ; but if carried beyond these limits, the result is inevitable failure of those marvellous powers ; and although doubtless emulation is a good feeling to have, it is better as applied to mental acquirements than in carrying on a severe and prolonged strain, such as rowing in long races, etc. Severe mental strain, however, is frequently disastrous in its results, and cannot be too strongly deprecated. In taking bodily exercise, care must be taken to extend it gradually, and never to allow the individual to be pumped out ; if this is ever done, it is at great risk.

For girls horse exercise is best ; but, where this is unattainable, walking must always be insisted

upon when weather permits; and, if confined to the house, there are many indoor games, such as parlour croquet, or quoits, billiards, bagatelle, battledore and shuttlecock, *les graces*, etc., which, with calisthenic exercises, will furnish as much work for the body as will secure a healthy glow and a good appetite for dinner. Under these circumstances there will not, as a rule, be found many ailments of the stomach.

In the Appendix are a few useful forms of remedies for the various derangements treated upon in this period, but which of course may occur in earlier or later life.

AILMENTS OF THE STOMACH DURING THE PERIOD OF MATURITY.

EXCEPTING the cases of organic change, such as cancer, fibroid disease, degeneration of walls, and ulcer of the stomach, the origin of which is in each case obscure, and which doubtless may exist without previous indiscretion on the part of the sufferer, the whole of the various forms of dyspepsia or derangement of the stomach may be said to be due to *excess*, either in the indulgence in improper food, or in strong drinks, or in idleness as regards exercise and bathing, or in the indulgence of the passions; that is to say, people need not suffer from

them, provided they would pay attention to avoid these excesses. To find a remedy for the condition of dyspepsia, when it exists and has become chronic, is not so easy; but no benefit can be looked for by the use of drugs, unless bad habits be broken through. Drugs were never given to enable man to sin with impunity, but as means of assistance, aiding his own endeavours for the restoration of health.

The subject of diet will be dealt with in the chapter on Food. A few incidental allusions to it will, however, be necessary in discussing the different forms of dyspepsia, of which the general symptoms may be stated to be loss of appetite or depraved appetite, foul tongue, often accompanied by a fetid odour in the breath, pain on or after taking food, vomiting, distension, flatulence or wind, excessive acidity or heartburn, flushings in the face, heat in the hands and feet, nausea, headache, languor, nervousness in its million forms, palpitation, sleeplessness, nightmare, biliousness—indeed, any of the symptoms known by the term nervous debility, and as a result disordered bowels, either from constipation or the opposite.

THE SYMPTOMS OF DISEASE OF THE STOMACH.

The two most important symptoms of disease of the stomach are pain and vomiting. These will

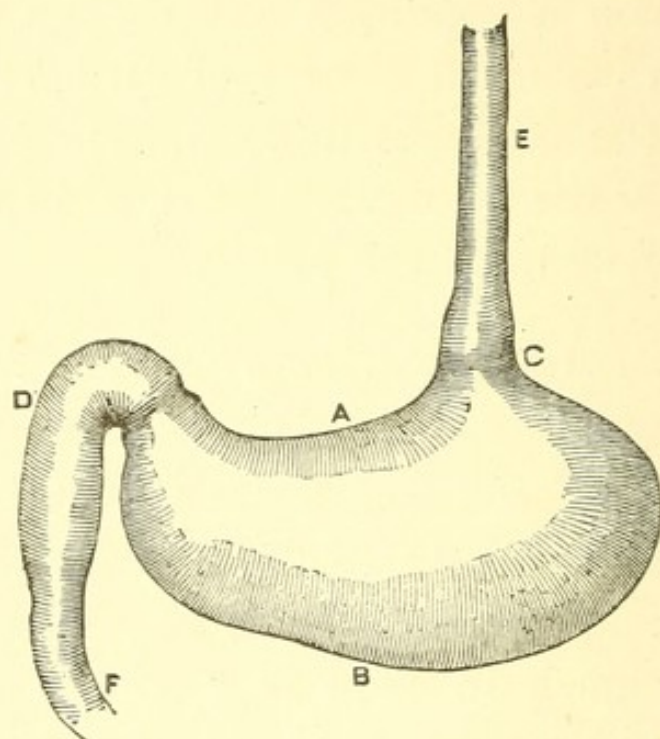
be found of greater or less significance in proportion as they are regular, prolonged, or severe; but it must be remembered that where mucous membranes are affected (and this is equally true, not only of the stomach, but of all the mucous membranes in the body), a very considerable amount of disease may exist without much accompanying pain, a condition exactly the opposite of that which occurs in disease of serous membranes, in which the slightest inflammation is invariably attended by the most acute pain, as in rheumatism and the inflammation of joints.

DESCRIPTION OF THE STOMACH AND ITS FUNCTION.

Perhaps, before going further, a brief description of the stomach and its belongings may not be misplaced.

The stomach in man is a single closed bag, which may be represented by the following diagram, semilunar in form, having when empty two edges or curvatures, of which the upper, A, is the smaller, the lower, B, the larger of the two. The food enters by the œsophagus, or tube from the mouth, E, through the œsophageal entrance of the stomach, C; and after remaining in the organ, to be acted upon by the peculiar juice of the stomach, the gastric juice, passes through the pyloric orifice,

a valve situated at the other end of the stomach, D, into the bowel, F, here for a short distance called the duodenum; into this portion of the bowel the common bile duct and the pancreatic duct, conveying respectively the secretion of the liver and pancreas, or sweet-bread, as the bile and the pancreatic fluid, open; in that portion of the



bowels the food, after being first masticated and mixed with saliva or spittle, next swallowed, and acted upon by the gastric juice, undergoes further change by the addition of these two important fluids, which convert it into what is termed chyme, a semi-fluid mass, ready for the absorption of the lacteals, or small glands in the bowels, which form by their peculiar secretory power the chyle; this,

mixed with blood, is conveyed by the portal vein back to the liver.

The blood, so laden with nutritious fluid, after passing through the liver system, and undergoing the changes which are there carried on, passes onwards to the right side of the heart, and thence through the lungs, where, being purified in respiration by the absorption of oxygen and the giving off of carbon, the residue of the changes which have before gone on in it, is pumped by the left side of the heart through the aorta, or main artery of the body, and thence, by division and subdivision, through the minute network of vessels, called, from their hair-like fineness, the capillary system; and from these, which permeate the body everywhere, the blood is again collected, and that from the extremities mingling with that from the bowels passes on to undergo again the changes which I have endeavoured simply to describe.

I may mention that the stomach is situated just below the breast-bone, and lies transversely across the body, having the œsophageal entrance to the left side and the pyloric orifice to the right, and having the liver on the right and towards the right lung, and the pancreas to the left and towards the spine.

A general idea of circulation and digestion having been obtained, we will pass on to consider the diagnostic value of

PAIN AS A SYMPTOM OF STOMACH DISEASE.

Pain in the region of the stomach may arise from a variety of causes, the two most severe being cancer and ulcer of the stomach; in these the pain is produced by taking food, especially solid food, and the situation of the cancer or ulcer may frequently be ascertained by noting the exact period, on swallowing, at which the pain is produced; but in these terrible cases there will be present such other indications, in the emaciation, complexion, etc., as to leave no doubt as to the precise nature of the case, and to render medical assistance imperative. It will not be necessary here to dwell further upon these two worst forms of stomach disease, than to say that the fluid form of nourishment generally affords the greatest benefit, and milk in particular is extremely serviceable. The pain is so acute, and the general health suffers to such an extent, that these painful cases can scarcely be mistaken for any of the forms of dyspepsia which can be cured by self-management.

Of the various kinds of pain not caused by either cancer or ulcer, by far the commonest is caused by distension; for although the stomach is capable of bearing a considerable amount of distension from food, when flatus or gas is formed

rapidly, as it frequently is, it inflates the stomach, and often the bowels, to such an enormous extent as to cause intense pain and uneasiness. In these cases, when the wind is dispersed, the pain is removed. This condition of distension may exist when the stomach is empty, from debility, or it may come on, as it more usually does, from a deranged condition of the mucous lining of the stomach, and an insufficient or altered supply of gastric juice, or from the presence of hard, partially masticated, or otherwise indigestible food.

Of the forms of pain that are persistent, the commonest is that caused by congestion or chronic inflammation of the stomach, produced by inattention to rules of diet, and an indulgence in spirituous liquors; this is usually described as a feeling of rawness, and is spoken of as a rawness of the chest. Acute pain of longer or shorter duration is caused by attempts to pass the pyloric orifice or valve of pieces of hard, undigested food, of various kinds in adults, and more particularly of curded milk in children. Until these matters are disposed of, no relief can be obtained: the remedy therefore is obvious; viz., to administer an emetic, and thoroughly empty the stomach, after which a purgative should be given, and any such matters as may be deemed advisable for the relief of pain.

Pain, accompanied by acidity or heartburn, may arise from a variety of causes, but is usually found in persons of sedentary habits, in whom the liver and bowels are torpid. An antacid in the form of soda, or potass, or ammonia, may be used for temporary relief, followed by a few drops of Battley's solution of opium, with a little ether; but general treatment, which will be described when I come to treat of hepatic and renal dyspepsia, will be absolutely necessary for permanent relief.

VOMITING AS A SIGN OF DISEASE OF THE STOMACH.

It will be desirable to divide this into two forms: (1) that caused by conditions existing in the stomach and duodenum; and (2) that caused by conditions external to the stomach, that is, originated by disease of other organs.

In order to make it understood how vomiting occurs from disease of other organs, it is only necessary to say that vomiting is what is termed a reflex action, that is, caused by action communicated through the nervous centres to the stomach from irritation, which may be either in those centres themselves, or may exist in some other organ in the body, or may even be in the stomach itself; so that although matter may be expelled

from the stomach with wind by the mouth, that is not vomiting, which can only be effected through the medium of the great nervous centres. This is the mode in which tickling the throat with a feather produces vomiting. It is necessary to describe this, otherwise it would be difficult to understand how vomiting occurs from irritation apart from the stomach, such as the causes which I have pointed out, or shocks to the nerves, fright, etc.

Vomiting is therefore of greater or less importance as a symptom, in proportion to the severity of the other symptoms accompanying it. It may occur also from the general irritation of the system, as at the commencement of fevers, etc.

1. *Vomiting produced by causes connected with the stomach or duodenum* may arise in the same way as pain is produced from cancer, or ulceration, or from irritating matters in the stomach, or from pressure upon the organ, as from tumours, dropsy, pregnancy, etc., or from violent coughing; in whooping cough, the cause of vomiting is the irritation of the pneumogastric or large nerve which is distributed both to stomach and lungs.

Bilious vomiting occurs when bile is forced backwards from the duodenum, into which portion of the bowel, as I have before pointed out, the common bile duct from the liver empties itself,

through the pyloric orifice of the stomach, into that organ. A very small quantity only of bile is necessary to produce vomiting; but in cases of obstruction, enormous quantities are vomited, as in labour, from mechanical pressure. Persons said to have sluggish liver frequently suffer from this form of vomiting, which in reality depends more upon obstruction to the normal flow of bile, than upon any inactivity on the part of the liver.

2. *Vomiting caused by conditions external to the stomach.*—The most important of these are the hepatic form, that due to deranged function or organic disease of the liver, also during the passage of gall-stones; and the renal, or from disease or irritation of the kidney, as in Bright's disease, in which the kidney, failing from disease to dispose of the urea from the blood, its natural secretion, and allowing in its stead that most valuable constituent of the blood—the albumen—to drain away through its disorganized structure, the stomach is forced to separate some of the urea, and its unnatural presence in the organ causes vomiting.

During the passage of stone from the kidney down the ureter into the bladder, and during its existence and formation in the kidney, vomiting is invariably present. In these cases, whether the passage of gall stones from the liver, or calculi from the kidney, the situation of the pain and

other attendant symptoms quickly disclose the cause of the vomiting.

The vomiting of gout partakes of all causes. First, a stomach inflamed or congested ; secondly, a liver loaded and often enlarged ; thirdly, kidneys unable to dispose of excess of uric or lithic acid.

The vomiting of hysteria or deranged function of the womb is present in adult life in connection with disease of that organ or its appendages, just as it is produced in the young by purely functional causes

Vomiting is present in spinal or cerebral disease, but the accompanying symptoms in these cases cannot be mistaken.

Vomiting frequently comes on during the course of febrile attacks ; but this is not necessary to describe, as it will be always dealt with by the physician in charge of the case.

Distension from flatus or wind may be an accompanying symptom of organic disease, or it may be caused by functional derangement. This is also true of heartburn or acidity.

The most prominent symptoms, then, of a deranged state of the stomach are loss of appetite, furred tongue, unpleasant odour in the breath, pain, vomiting, acidity or heartburn, distension or wind, as it is termed, and an unhealthy character of the evacuations, which may be either loose or the reverse.

HÆMORRHAGE, OR BLEEDING FROM THE
STOMACH.

This is always a very grave symptom, and is caused from the giving way of some of the numerous vessels with which the organ is supplied. It may be distinguished from hæmorrhage from the lungs, as it is vomited instead of welling up as it were into the mouth. It comes up in larger quantity, and is always accompanied, or rather preceded, by a feeling of nausea or sickness. All that is necessary for me to say about it is that medical aid must be obtained without loss of time, and perfect rest enjoined; ice and acid drinks should be given. Ice should be applied in a bladder to the pit of the stomach, No. 26 in the appendix; gallic acid or turpentine in water should be given to arrest the bleeding; and in cases where a recurrence of it is to be feared, Ruspini's styptic is to be kept in the house. I have witnessed the action of this preparation in cases where enormous quantities of blood were frequently vomited in connection with disease of the spleen, in which gallic acid, turpentine, and iron, our stock styptics, all had signally failed to arrest the hæmorrhage, and which yielded at once to this so-called "quack medicine." Bleeding of another kind may arise from sponginess of the

gums, or from the giving way of some small superficial vessel in the throat from retching, etc. This condition requires astringent washes and cold water, and will seldom give much trouble.

THE VARIOUS FORMS OF DYSPEPSIA, *i.e.* INDIGESTION OR DERANGEMENT OF THE STOMACH, COMMONLY MET WITH IN ADULT LIFE.

As I am endeavouring to point out means of management rather than medical treatment, and having shown that the differences between cancer, ulcer, and degeneration of the walls of the stomach (diseases which demand medical treatment), and those other forms of ailment which admit of relief by self-management, are so well marked that there can scarcely ever be any doubt in the matter; I pass on to consider the different forms of dyspepsia most common, and which certainly admit of more successful treatment by a strict adherence to the rule to which I shall draw attention, than the most elaborate drugging and dosing will afford, except it be assisted by a system of life well understood and properly carried out. And here I may say that no class of disease affords anything like the happy results which are to be obtained by care and denial of self-indulgence in the management of disease of the stomach, and in no class of disease is the intensity of the symptoms so dispro-

portionate to the gravity of the mischief. The treatment therefore of these ailments by a well-arranged system of self-management is full of encouragement, whereas the reliance on drugs taken occasionally against improper food and stimulants, which are taken habitually, is as hopeless as it is absurd.

The usual forms of dyspepsia occurring in adult life may be divided into two primary classes:—

1. Those in which the origin or seat of the mischief is in the stomach, and where there is no evident disease of other organs.

2. Those in which other organs, as the liver, kidneys, etc., or some general condition of the system, as in gout or rheumatism, seem to produce dyspepsia, although doubtless in many instances a deranged state of the stomach has been antecedent to these general conditions.

The first of these two classes may be again divided into—

- (a) Plethoric or active dyspepsia, embracing the congestive and inflammatory forms. I must here observe that I make use of the term “plethoric” to express a condition of the stomach, not necessarily of the body generally, because these forms depend upon an excessive supply of blood or a plethoric condition of the walls of the stomach.

(b) Anæmic or passive dyspepsia, from a deficiency of both nervous and vascular supply.

(c) Fermentative dyspepsia.

(d) Dyspepsia accompanied by pyrosis or water-brash.

Under the second head, that is, where dyspepsia is set up by certain derangements of other organs or the entire system, we have—

(i.) Hepatic dyspepsia, caused by deranged function or organic change in the liver.

(ii.) Renal dyspepsia, caused by similar changes in the kidneys.

(iii.) Rheumatic dyspepsia, accompanying rheumatism.

(iv.) Gouty dyspepsia, accompanying gout.

(v.) Syphilitic.

(vi.) Strumous.

(vii.) Tubercular.

(viii.) Mechanical.

(ix.) Sympathetic.

I have adopted this arrangement as being the most simple and easy of recognition by non-medical readers, and at the same time sufficiently accurate to be of service to those of the profession who have not made the stomach a subject of special study.

We will now proceed to discuss briefly the characteristic features of each of these forms of ailment

of the stomach, with the management appropriate for each. Commencing, therefore, with the plethoric, or acute form, the first subdivision of which is the congestive, we find that this is frequently produced by obstruction to the flow of blood in some other organ, as the liver, the lungs, the heart, etc. The reason is simple, viz., from the great vascularity of the stomach, the bloodvessels forming a minute network between the secretory cells. It may also arise from irritating matters taken into the stomach, such as indigestible food or alcoholic drinks. Both these forms of dyspepsia may be said to be congestive, although in one case the veins, and in the other the arteries, are affected. There is little difficulty in making out the cause of these conditions, as marked symptoms entirely distinct in character will be present in cases of obstruction to the circulation of the blood in either the liver, the lungs, or the heart; and equally well-marked symptoms are present when the mischief is caused by excess.

The treatment in both these forms is to relieve by a purgative, and sometimes by an emetic; to produce counter-irritation over the stomach, by means of a mustard plaster applied for half an hour; and to give the organ rest—by taking as small a quantity of food as possible, and that in a fluid form; for this purpose milk, with the addition

of a little lime-water, to check curding, is most serviceable, and plenty of variety may be obtained with the different kinds of farinaceous foods, arrow-root, oatmeal, etc. If milk is very unpleasant to the patient, carefully prepared soups, broth, etc., may be taken, but it must be remembered that milk is best, if it can be made the principal food. In cases where a milk diet has been thoroughly carried out, I have never known milk to disagree, but it frequently does so to a very painful extent in cases where animal and other foods are taken as well.

The second of the two subdivisions of the plethoric or active form of dyspepsia is the inflammatory dyspepsia, by far the most common of all the various forms of ailment of the stomach, and caused chiefly by the carelessness and inattention of people to the ordinary rules of health and by indulgence in stimulants.

The symptoms are pain, sometimes vomiting, great amount of flatulence, with excessive acidity, foul tongue, impaired vision, flying specks before the eyes, palpitation of the heart, nervous tremors, sleeplessness, or broken sleep, accompanied by nightmare, nausea, faintness, giddiness, etc., etc.; indeed, any or all of the distressing symptoms generally included in the term nervous debility. This condition of the stomach, if not checked,

may proceed to ulceration of the coats of the organ, disease of the liver, frequently accompanied by piles, kidney disease, dropsy, and a lingering death. But if this form of dyspepsia is so terrible in its effects, there is no disease which admits of such speedy and perfect cure by strict attention to diet and treatment.

The treatment is to unload the vessels by an occasional liver purge—saline purgatives—such as seidlitz powders occasionally, total avoidance of spirits, care in selection of wines, and a very sparing use of them, exact regularity in taking food, at least three hours' interval to be allowed between meals, the food taken to be as light and digestive as possible. Soups, broths, and farinaceous puddings, with eggs, etc., will be found extremely useful. Mustard plasters over the pit of the stomach allay pain, and arrest the tendency to sickness; and cooling drinks, such as iced water, toast water, barley water, lemonade, or soda water, with or without milk, will be found grateful and refreshing.

Plenty of exercise in the open air, if combined with attention to the above hints as to diet, etc., and assisted by the cold bath every morning, will soon effect a cure, and all the distressing symptoms will disappear. Without this strict attention to rules, all the drugs in the pharmacopœia may

be tried, and the symptoms will only be aggravated.

The next form of dyspepsia which we have to consider is—

(b) *The anæmic or passive dyspepsia* from defective supply of nervous or vascular power.

This is the dyspepsia of the aged, the enfeebled from excess of nervous excitement, resulting from prolonged application, mental anxiety, etc., or any drain on the system; and the debilitated from want of proper sustenance.

The treatment in these cases is simple, viz., to present food in as easily digestible a form as possible. In the case of aged persons it is necessary that food shall be taken in small quantities, and more frequently than is necessary with younger people; here also stimulants, which are the curse of the young, are the blessing of the old. The stomach too enfeebled, perhaps, to digest even wine, takes with readiness and benefit good old brandy or whisky; and in cases where the kidneys appear to be sluggish, a little unsweetened gin, mixed of course with water. These diffusible stimulants are absorbed quickly into the blood, and furnish food for the nerves, and, improving the general tone of the entire system, are a comfort and staff to the aged and infirm. The great mistake usually made is, that so much spirit has been

taken in earlier years, at a time when none in fact ought to have passed the lips; thus when the period of life arrives in which stimulants are so useful, organic change precludes their administration, and the means which would otherwise be of the greatest value in enabling us to combat disease and prolong life, are taken away from us; so the patient sinks, drowned as it were from dropsy, in which may be discerned a grim joke of Nature, filling him with water, a fluid which he has for years so persistently refused to drink. The whole subject of stimulants will be dealt with at length in the chapter on food.

In these cases of aged persons, they usually have their own particular form of pill, which by long habit they find to suit them; but they must not forget that inasmuch as variety in diet is a direct advantage, so is change in forms of medicine; an occasional liver stimulant is beneficial, such as No. 7. The continued use of mercury in any form is bad, as it, like everything else, becomes inactive in moderate doses, and very large ones are rendered necessary to produce any effect. These, I need hardly point out, are injurious in other ways; a simple rhubarb pill will usually suffice to keep the bowels regular; and if there is great feebleness, the milder preparations of iron, with a weak bitter infusion, are the best tonics. If iron is not borne

well, the mineral acids in very dilute form answer very well; and if bitters can be obtained, which really are bitters from the essential oil of the orange peel, and not the vile compounds ordinarily sold as bitters, (which are for the most part composed of the extractive matters of gentian, wormwood, quassia, etc., and which I have no hesitation in saying are not fit to be placed in the human stomach, unless irritation of the organ be desired,) they may be taken with the greatest benefit. It is not my intention to specify any particular articles; but I may say that such pure orange tonic bitters are to be obtained, for I have recently been testing the qualities of some which are perfectly wholesome, possessing the highest tonic qualities, and are most agreeable to the palate.

In dyspepsia brought on by excess of excitement, the remedy is obvious: cease the excitement, and obtain entire rest and change of scene and air. The hints before given will furnish an useful guide to treatment, except that, in place of spirits, good sound and light bitter ale should be taken as a stimulant and tonic, and a more liberal diet may be allowed. The same attention will be requisite to exercise out of doors, early hours, and the regular cold bath in a morning.

The last form of anæmic dyspepsia necessary to allude to is that of "Want," and I must confess

my inability to cure this. I can only recommend half of the world, who consume twice as much as is needed for health, to direct their attention more to the stomachs of their poorer neighbours, and less to their own.

Before leaving this portion of the subject, I may mention that the condition of stomach associated in young girls with hysteria partakes of this anæmic form, and requires a corresponding tonic and invigorating treatment. The next form is that of

(c) Fermentative dyspepsia.

This may arise from a variety of causes, and may be comprehensively described as of two kinds. First, where the stomach is empty, and the secretions undergo fermentative change, and so produce great distension from the gases evolved; and secondly, where the food undergoes a similar abnormal change, and causes a like distension.

The first form is essentially that of debility, and occurs in low states of the body, as in convalescence after fevers, etc.; also in hysteria and other diseases indicative of want of tone, and may therefore be termed "atonic."

The second form is frequently caused by improper food and the inability of the stomach to digest it.

The treatment in the atonic form is to brace up

the system by mild tonics, exercising care in the selection of food ; and in the second form of fermentative dyspepsia the acidity and flatulence may be relieved at the time by a little carbonate of soda, sal volatile, and essence of ginger with peppermint water. If, however, there is much accompanying pain, it will be advisable to administer an emetic, for which purpose the homely one of mustard, salt, and hot water, answers very well. After which a few drops of ether, with a little solution of opium, say twenty drops in water, will usually suffice to procure refreshing sleep.

In those cases where there is distinct decomposition of food, the so-called antiseptic treatment is useful, and this is probably the only kind of dyspepsia in which it is of benefit ; viz., a little permanganate of potass in water thrice daily, with charcoal capsules after food. I must confess, however, that even in these cases I have found more benefit from a mild muriatic acid mixture thrice daily, such as one drachm of dilute muriatic acid in eight ounces of weak infusion of calumba, two table-spoonfuls for a dose, taken in the intervals between meals, and one or two charcoal capsules after the food, than by the use of special antiseptics.

DYSPEPSIA ACCOMPANIED BY PYROSIS OR WATER BRASH.

So called from the rising up into the mouth of a large quantity of colourless fluid like water, which accompanies it. The exact origin of this is doubtful, whether it proceeds from the stomach or duodenum, but this being purely of scientific interest, it is unnecessary to discuss it here. The treatment of the affection is all that concerns us. And as the disease is essentially of the atonic or feeble type, astringents and tonics are indicated ; the mixtures, Nos. 11, 12, or 13, and the pills, Nos. 15 and 20, will be found of service ; and if there be pain accompanying it, the hydrocyanic acid mixture, No. 9, will afford relief.

I now come to the second great class of dyspepsia, embracing those forms connected with marked evidences of disease in other organs, the first of these will be,

I. HEPATIC OR LIVER DYSPEPSIA,

Caused by deranged function or organic change in the liver. The most prominent symptom of this form of dyspepsia is biliousness, so called from the frequent presence of bile in the stomach ; a distinct bilious or yellow tinge in the white of the eye, especially visible if the eyelid be lifted up, and the

upper and back part of the globe of the eye exposed ; and disordered stools, sometimes from constipation, and at others from looseness, but usually very offensive from gases evolved, which do not exist when bile is present in healthy quantity in the bowels. The water in these cases is usually of a high reddish-brown tint, resembling brown sherry, scanty in quantity, and scalding in passage. There is often coldness of the limbs, nausea, loss of appetite, sickness, despondency to a great degree, languor, palpitation ; indeed, any of the symptoms of dyspepsia previously enumerated. These symptoms may come on suddenly, accompanied by acute pain, as in the passage of gall-stones, in which case the patient may be perfectly clear in complexion in the morning, and at midday may be the colour of saffron ; the pain accompanying this state, coupled with the constant sickness, leaving no doubt as to the nature of the attack. Or the symptoms may come on gradually, without pain, but there will in these cases be more or less sickness. In the passing of gall-stones the severity of the attack calls for immediate medical assistance. I need not therefore dwell upon the treatment of that most painful malady.

In the slow and gradual march of bilious dyspepsia the treatment is to unload the liver system by taking occasionally a good liver pill,

No. 7 will answer for this purpose very well. Saline purges, such as Epsom salts or seidlitz powders, will also be useful, if taken two or three times a week in the morning. After which the mixtures Nos. 8 and 16 may be used. Horse exercise is especially indicated in these cases, care being taken not to over-fatigue.

The diet must be plain, and of an unstimulating character. Soda or potass water may be taken freely, first placing ten grains of bicarbonate of potass in the tumbler: even the small dose of potass, when taken frequently, has a direct effect upon the liver, and favours the flow of bile into the bowels.

II. RENAL OR KIDNEY DYSPEPSIA.

This is caused by sympathy with the kidneys, in the passage of stone from them into the bladder, or from their not being able to dispose of the urea from the blood, which it is their natural function to secrete and eliminate. This, which may be regarded as one of the effete products of the combustion process of life, finds its way into the stomach, and produces dyspepsia, assuming different aspects in different cases, but accompanied by vomiting in all, and also by a sense of greater or less discomfort.

These cases are so marked in their other symptoms, the emaciation, faintness, palpitation, noises

in the head, etc., etc., that medical aid must be obtained; in its absence, friction, dry-cupping, blisters, poultices, fomentations, mustard plasters, or painting with iodine, may be resorted to, over the region of the kidneys, whilst the bowels must be kept soluble, and the liver acted upon by the mild alterative pill No. 22. And the diet must be nutritious and light, but unstimulating; in fact, no stimulants ought to be taken, except in cases of great exhaustion. For the relief of sickness, a mustard plaster over the pit of the stomach, and the effervescing hydrocyanic mixture No. 9 will be found most serviceable. Ice is very refreshing to the patient, and useful also in allaying sickness, iced effervescent drinks may therefore be freely used.

III. RHEUMATIC DYSPEPSIA.

This is a result of the oppressed state of the system, laden with rheumatic poison, and differs but little in this respect from a like condition in gout. The shifting character of the pains in muscles and joints is sufficient to indicate the nature of the attack.

The treatment is to clothe the patient from head to foot in new flannel, to regulate the action of the liver and bowels, as before pointed out, to exercise care and regularity in diet, and to be sparing in

the use of stimulants. The pill No. 15, or mixture No. 8, followed by the tonic mixture No. 11, will be found of service. There is no special treatment for rheumatism, except to avoid the influence of cold by the use of new flannel. Healthy food must be taken in, and the door for the disposal of unhealthy products kept open, whilst the system is invigorated by gentle alteratives and tonics, of which change of air and scene is by no means the least agreeable or efficacious. Old whisky is the best spirit that can be taken in these cases, and for a general beverage water; but if water is very distasteful, light bitter ale brewed at Burton-on-Trent is the best fluid which I can suggest. The water, specially adapted for brewing, obtained there, and the perfection to which the science has been brought by the Burton brewers, have up to the present time, rendered any approach to their standard of excellence elsewhere unattainable.

IV. GOUTY DYSPEPSIA.

In this form the symptoms may not be so marked as in the rheumatic form, because that which is generally understood as gout, viz., an inflammation of a joint, accompanied by the usual symptoms of inflammation, redness, swelling, heat, and pain, is in reality the localization—the focusing, in fact—of a general condition of the blood, which has been

gradually accumulating until it culminates in the local affection. This, with the enforced rest, dosing, and dieting, after a time carries off the poison from the blood, usually to accumulate again within a longer or shorter period.

The treatment for gouty dyspepsia is the treatment for gout, namely, to eat and drink less, and to take more exercise. Smart purging is necessary in these cases, and as a rule the Friedrichshall water taken every morning is highly beneficial; a dose of blue pill, as No. 27, and the mixture No. 16 will be found of great service. As I have before pointed out, gout is a disease which no one ought to have until he becomes so aged as to be physically incapable of taking exercise: with plenty of that, and a healthy allowance of meat and drink, no one will ever have gout. Horse exercise is particularly useful in gouty dyspepsia, and may be taken by heavy men, whose joints are unable to bear the fatigue of walking.

V. SYPHILITIC DYSPEPSIA.

This partakes of the atonic or anæmic form, and is often accompanied by considerable wasting of flesh. The iodides of potassium and iron are especially useful in these cases; the mixtures Nos. 13, 21, and 23, are very good forms. Care must be taken to regulate the secretions, and a liberal

diet, with stout, port wine, etc., allowed. If there remain any eruption on the skin, or affection of the bones or joints, surgical aid must be obtained, when the dyspepsia will disappear with the constitutional taint.

VI. STRUMOUS OR SCROFULOUS DYSPEPSIA,

As its name implies, is connected with a constitutional taint, hereditary, and not acquired, as in the former kind, and is evidenced by a disposition to suppuration in the glands of the neck and other parts of the body, and even in bones and joints. Tonics are necessary, but especially the iodide of iron, as mixture No. 21, or pill No. 20. In cases where the pills appear to suit best, the mineral acid mixture No. 11, or that containing sarsaparilla, No. 23, will be found useful in conjunction with them.

VII. TUBERCULAR OR PHTHISICAL DYSPEPSIA.

This is the dyspepsia of consumption, and is produced by various causes very difficult to control: it is characterized by sickness, which is produced by coughing, by flatus, or by irritation of the pneumogastric or large nerve distributed to the throat, lungs, and stomach. The treatment of this form of dyspepsia is one of tender care and nursing more than any special system. Tonics,

cod liver oil, pancreatic emulsion, beef and brandy mixture No. 28, and good light and nutritious food, fluid, and ready for absorption as quickly as possible, will prove our best friends in these painful cases.

VIII. MECHANICAL DYSPEPSIA

Is caused by pressure upon the stomach, either by stays from without, or tumours and dropsy from within; also from the pressure of the uterus in pregnancy. In cases where it arises from tight lacing the remedy is simple, viz., to remove the pressure; where the pressure is from within, the remedy is not so easy; in the case of pregnancy, time will remove it, and in the cases of pressure from tumours, dropsy, etc., surgical assistance is imperative. It will not be necessary therefore for me to go further into the treatment of these forms of mechanical dyspepsia.

IX. SYMPATHETIC DYSPEPSIA.

We now come to the last of the divisions which I have made of the subject of dyspepsia, and of this all the others mentioned may be said more or less to partake. As I have mentioned, the stomach is connected by vessels and nerves, not only with the viscera in the abdomen, but also with every other part of the body; and this must not

be overlooked, as it furnishes us with a very important clue to the influence of disturbed function upon the stomach, although occurring in organs which are far removed from it. And a certain amount of encouragement to nervous sufferers may be obtained from this, inasmuch as, if the stomach is deranged by means of nervous and vascular supply, from derangement of other organs, or by irritation of the nervous system, these other organs and the nervous system may themselves be upset by mischief arising in the stomach; and it is a fact that neglect of the stomach does produce, in many instances, a high degree of nervous irritability, which disappears with the dyspepsia, under a judicious system of treatment.

In children, as I have already pointed out, mischief in the head is often first evidenced by vomiting; and this ought to cause parents to watch their children very carefully, as it is easy to mistake the commencement of water on the brain for a bilious attack. Irritation of the spine, in like manner, produces sympathetic dyspepsia, as also does disease of kidneys, lungs, or liver, or deranged uterine action, as in the hysteria of women, and in the irritation of pregnancy, which partakes both of the sympathetic and the mechanical form; in men, irritation of the genito-urinary tract also produces sympathetic dyspepsia.

In all these cases the dyspepsia disappears as soon as the source of irritation in the other organ, whatever it may be, is removed.

Now, having obtained a general idea of the most prominent forms of dyspepsia, we will pass on to consider the great subject of

FOOD.

This is a most difficult subject to describe in a mode easy of comprehension to the general public; I must therefore crave indulgence, if I fall short of my aim, which is to present a comprehensive view of it. It may be broadly stated that if one half the world have not enough to eat, the other half eat twice as much at least as there is necessity for: they retain at their own risk the surplus quantity which they take into the body; hence it will be understood how important it is that the organs of excretion, the bowels and kidneys, should be relieved of their products as regularly as possible, and the lungs and skin maintained in health by the stimulus of the cold bath and regular exercise.

The quantity of food required necessarily depends upon the amount of wear and tear incurred. No hard and fast line can be laid down on that point; still excess in stuffing is as bad, if not worse, in its effects, than excess in drink; and in order to be certain that this is not a daily habit, regular

hours of exercise ought to be adhered to, and the action of the secretions regularly watched, so that the first symptom of inactivity may be corrected by a pill, draught, or seidlitz powder. Persons for whom the ordinary seidlitz powders are too strong, will find the granular effervescing citrate of potass a very agreeable, mild, and cooling laxative, when taken in doses of one dessert-spoonful in half a pint of water before breakfast.

Another important point in connection with this subject is the regularity of hours of meals, and the allowance of sufficient time between them, to admit of the due preparation of the stomach for the following meal.

Care should be taken to fix the time of the principal meal of the day, so that perfect rest for an hour or two may be obtained afterwards: this will enable the first stages of digestion to proceed without interruption; and when this has been done, gentle exercise favours the later processes, and assists the onward flow of the food through the intestines. No greater mistake can be made than to dine early, and rush off immediately to business, as soon as a hurried meal has been swallowed. The stomach is here encumbered with a sudden influx of hard unmasticated food, which under any circumstances would require many hours for digestion, and would almost surely cause pain in the

process ; it is not difficult therefore to realize the harm which must accrue from such a course.

With regard to food generally, without going into all the scientific distinctions between nitrogenous, carbonaceous, starchy, and other kinds of food, it must be granted that a diet composed of animal and vegetable food, together with some of the various kinds of flour or starch, is absolutely necessary for maintaining the body in health, and that water is all that is necessary as a beverage. But in many instances, from the artificial tone of people's lives, a stronger beverage, such as beer, is preferable. Wines properly selected may be taken sparingly with benefit, but spirits, I unhesitatingly affirm, ought never to be taken, except as medicines, by any but aged persons.

Beginning, then, with breakfast, I would recommend a basin of oatmeal porridge to every one. This must be boiled and stirred for from half to three-quarters of an hour, in order that the starch may be broken up and more or less converted into other compounds, "dextrine" and sugar, in which form only can it be taken up and utilized by the system. The success of the porridge depends entirely upon the care and intelligence of the cook. In most instances, when it is tried, it is discarded as a sickly-looking, lumpy, and very unpleasant mess, when it comes to

table, instead of being, as it ought to be, as smooth as cream, though thicker, and delicious in smell and taste. I wish most particularly to impress upon my readers the value of oatmeal porridge, if not morning and evening, at least in the morning, as a nutrient, an emollient to the coats of the stomach, and a laxative to the bowels. I may say that in some forms of dyspepsia it is indispensable, and in all cases is far superior to bread and milk, as, if milk is taken with the porridge, the curding which so frequently occurs when milk is used with other articles of food, is entirely prevented. After a pint or more of oatmeal porridge has been taken, a little game, fish, bacon, eggs, etc., with coffee, tea, or cocoa, as preferred, may be taken, and will enable most persons to make a very satisfactory and wholesome meal. The time should be about eight or nine o'clock, a.m., after which nothing more is requisite until one or two p.m., when luncheon, in the shape of bread and cheese and a glass of ale, basin of soup, and glass of sherry, or chop, with or without vegetables, will enable most people in tolerable health to last until dinner-time. In the case of invalids, the middle of the day is the best time for dinner, and they often require an egg beaten up with a little sherry or brandy and water, a biscuit and glass of wine, or a basin of broth or soup, in the interval be-

tween breakfast and dinner. They also require a lighter and more fluid kind of diet than the robust, who, when in full exercise, can eat and drink almost anything with comparative impunity.

I shall presently recur to the subject of diet for dyspeptic patients, and will now pass on to consider the important meal of the day, dinner.

I have no hesitation in saying that the great fault of modern dinners is the number of dishes which are introduced, which are often badly cooked and worse served, and, possessing very little nutriment, only serve to clog the stomach, without contributing to the general nutrition of the body, and certainly do not even please the palate. A fried sole, a chop and potato, followed by a woodcock, served one to each guest, and cooked to perfection, meets my idea of a luxurious dinner, far more than the most elaborate bill of fare that ever emanated from the fertile brain of Francatelli. I need say no more to illustrate my views that simplicity is the one thing to be sought in dining. Let us have perfect cooking and serving, but plain wholesome food. If the stomach is not gratified by a tender saddle or haunch, a brown and smoking sirloin, or a juicy steak or chop, depend upon it, it is the best monitor, and "go without" should be the order of

the day. If we tempt the stomach with curries and highly seasoned dishes, although curries may be useful in certain cases, there can be but one result, viz., a clogging of the system with food taken when not required, and when the digestive powers are not in a fit condition to receive it. Inasmuch as the entire organism requires rest in proportion to the strain put upon it, so does the stomach; and, as a rule, this very rest is exactly what it does not get, until an attack of illness renders the usual stuffing and cramming impossible. Here we have a manifest reason why people are better in health after an attack of illness, than they were for some time previous to it; the enforced rest, the regular living, the judicious purifying of medicine, which they have undergone, have done that which might have been rendered unnecessary, if only they would have exercised a little common sense and self-denial in the time preceding the attack.

With regard to the cooking of meat, the most nutritious mode is roasting, for the reason that the juices of the meat are retained in the process, although the meat is cooked; that is, to describe it in common terms, "the gravy follows the knife." The slice of meat brown at the edge should be red in the centre; chops and steaks ought to present the same appearance. A very simple and efficacious

mode of ensuring this with them, is to dip them in sweet oil before placing them on the gridiron. The oil, blazing up for a moment, scorches the mouths of the tubules or pores of the meat, and instantaneously seals them, and prevents the loss of the juices of the meat in the process of cooking. I need scarcely mention that tongs, and not forks, must be used for turning.

As I have before pointed out, one kind of aliment is not sufficient; meat therefore, which represents the nitrogenous element of diet, by no means forms a proper food by itself, and requires the starchy element, which is so well supplied by the potato, upon which principally, with the addition of milk, and occasionally with a little bacon or fish, so many thousands of human beings live and thrive. Other vegetables of all kinds, if not absolutely necessary, are highly beneficial and wholesome. Many persons who entertain a mistaken idea, that they cannot eat vegetables, would be much benefited by their use; and without wishing to attach undue importance to the eating of vegetables, it is my duty to point out that they form part, and an important part, of man's daily food; but it in no way follows that because they play an important part in conjunction with animal food, they can be used with benefit solely as a diet of themselves, any more than meat can be without vegetables.

One error is as egregious as the other, whether it be all vegetables or all meat.

Bread furnishes in another form the same kind of food as the potato; and in cases where potatoes are not liked, bread and flour of various kinds, in puddings, etc., make up the deficiency, and form a healthy food. It is absolutely necessary for the well-being of the body, that nitrogenous food, as exemplified in meat, starchy food, as in bread, potatoes, all kinds of farinaceous puddings, etc., and carbonaceous food, as in fat, oil, grease, butter, etc., and vegetables or fruit, shall form part of our daily food. A certain small amount of sugar also may be taken with benefit, except in certain cases of deranged function, in which sugar speedily produces acidity, when of course it must be avoided.

Salt is a highly necessary addition to a wholesome diet, furnishing as it does that most important acid for digestion, the hydrochloric, which cannot possibly be supplied in any way so readily as by salt. It may be accepted therefore as a fact, that salt is an absolute necessity as an article of wholesome diet, in conjunction with animal and vegetable food. Large quantities of salt meat, without much vegetables, will produce an eruptive disease called scurvy, which in former times used to be very common in the navy, but which was

cured by the use of plenty of vegetables and unsalted meat.

Fish furnishes us not only with a very agreeable change in diet, but also, being rich in phosphatic food, is of direct benefit in contributing that element of the organism on which, in combination with lime, the solidity of our bones depends, and which influences by its presence the condition of the nerves generally.

The amount of mixed food necessary to maintain health varies with the individual power of assimilation; that is, the power, after absorption has taken place, of the different organs and structures of the body to assimilate the nutritive elements contained in the food, and so to form fresh structure of each kind from it. It is also very much dependent on the amount of wear and tear of the system daily to be borne. These important facts must be kept in constant remembrance, if health is to be maintained. As it is impossible to adjust exactly the supply and the demand, the safe plan is to err on the side of exercise, and not of idleness. Then, if a surplus quantity of meat or drink is taken, it is readily disposed of, and not much harm results.

DRINK.

As I have said, water is the best beverage for general purposes; and in the case of persons ordi-

narily healthy in constitution, and leading healthy lives, no stronger beverage than coffee is required. But in these artificial times a glass of light dry sherry or champagne is often rendered necessary as a stimulant and restorative, after prolonged excitement or mental strain has destroyed the desire for food, to coax the appetite, as it were, by the relief of nervous exhaustion. And this, let me say, is the true use of stimulants, not to excite, or to relieve depression following their own excitement, but to stimulate, or rather to feed, the nervous system, weakened by age or other causes. Although claret and red wines generally are largely consumed with solid food on the Continent, they do not appear to me to be so readily digested in this country as beer. I know of many cases where beer is drunk with benefit at meals ; but if any red wine be substituted, symptoms of indigestion immediately show themselves in acidity, flushing of the face, and urticaria, or nettle rash all over the body. These symptoms are also frequently produced by sweet wines, such as champagne highly liqueured. In the one case the excess of tartar, and in the other the excess of sugar, is the obnoxious principle.

For dyspeptic sufferers, dry wines containing a low percentage of alcohol, no acetic acid or vinegar, and only a very small quantity of sugar, are the most suitable. In using the term *dry*, I use it in

the negative sense of absence of saccharine matters or sugar, and not, as is often the case, in the positive one of astringent matters added to inferior wine to make it what is termed dry. With regard to wines of this latter class, I can only say most emphatically that they are an abomination, and I recommend my readers to remain dry themselves for want of fluid, or to drink water, rather than injure their stomachs by the introduction of such vile compounds.

There are many natural wines obtainable at the present time, which satisfy all the requirements of wholesomeness and delicacy of flavour, and which are far more valuable than the plastered, astringent, alcoholic compounds, which have for many years been foisted upon the public as dry sherry. A little tincture of iron in water would have been more palatable, infinitely more wholesome, and would not have cost anything like the price of these horrible mixtures, the consumption of which, I feel convinced, has been based upon a mistaken idea of their wholesomeness; for it certainly could not have been either originated or maintained by their effect on the palate.

In the same manner bitters of various kinds have been and are largely consumed, from an idea that they promote appetite; whereas, in the majority of instances, they produce an exactly

opposite effect, the ordinary bitters of commerce being, I believe, as antagonistic to a desire for food as any mixture could well be. This is the result of their preparation, from powerful alkaloid or extractive bitters, which remain on the tongue, causing the erectile papillæ to revolt at the contact, and also from the commonest white, or what is termed silent, spirit, containing fusel oil, a product most horribly obnoxious to the stomach, maddening to the brain, and persistent in its effects on the general system.

Before proceeding further on the subject of bitters, I may mention that fusel oil, the most poisonous principle contained in spirits, always exists in new spirit, whether distilled from raw grain, potato, or any other kind of starch, or from malted barley, as in whisky. It might be disposed of by further chemical processes, but that would necessarily increase the price, and it could not be sold at what the public believe to be the proper price of whisky, entirely overlooking the fact that they are buying poison from sheer ignorance, which they would not buy at any price, if they were once awakened to a sense of its terrible nature. Age removes the fusel oil, provided the spirit be kept in wood; hence the improvement in quality and flavour of whisky seven years old; and I have no hesitation in saying

that whisky less than five years old ought never to be consumed. French brandy, which is pure grape spirit, contains no fusel oil, even when new ; but the unpleasant fiery character which it possesses entirely prevents its very early consumption ; and it may be said of it, as indeed of all spirits, that they cannot be too old, that the older they are the more wholesome they are.

The action of fusel oil upon the brain seems to me analogous to that of "absinthe," the effects of which are very easy of recognition on the Continent. And in looking at the causes of crime among the lower classes, apart from their want of education and moral restraint, the very mad and senseless character attaching to their brutality in a vast number of instances points to poison in their circulation far more maddening than alcohol. This poison, in my opinion, is the fusel oil existing in the new, cheap spirits supplied to them, which, for the time being, renders them furious maniacs ; and this view is strongly supported by the fact that unfortunately drunkenness is not confined to the lower orders of society. For there are plenty of men amongst the higher grades, physically as strong, and possessed of as strong passions, as their humbler brethren, who do unfortunately sometimes drink to excess, and when in that condition, commit foolish and even

criminal acts, but these acts have none of the senseless ferocity which kills unoffending people, etc. Although unquestionably reason for the time being is upset, and the system is in a high state of excitement from the alcohol present in the blood, I think that the quality of the wines and spirits consumed by them is amply sufficient to account for the milder form of madness displayed by them on those unfortunate occasions, as compared with the blind, insensate, furious frenzy of the lower orders, recorded in our papers every day.

But to return to the subject of bitters. If compounds of this nature are taken as tonics and appetisers for general use, care must be observed to obtain only bitters which are prepared from volatile oils, such as that of the orange, and that French brandy only shall be used in the manufacture. In such bitters the essential principles are light, volatile, highly diffusive, extremely palatable, and form a most useful tonic for general purposes.

From previous remarks it will be gathered that liqueurs after dinner cannot be permitted to the dyspeptic. If any want of a stimulant is felt, only a small glass of very old French brandy can be allowed. With regard to wines, only one wine ought to be drunk with dinner, that may be the wine which is found to suit the best. No greater

mistake can be made than mixing wines, either in the stomach or out of it. A whole wine is always more readily digested than a blended wine, and is far more agreeable to the palate; why then allow a process to be carried on in the stomach which you decline to allow outside it? If a wine is pleasant to the palate, and acceptable to the stomach, it surely ought to be sufficient for the meal. Let it be remembered, therefore, that there must be only one wine to one meal. There are many persons who find that wine does not suit their powers of digestion; they wisely therefore take brandy or whisky and water instead; this, however, is better when taken after than before a meal.

Except in cases of derangement, where beer is not well borne by the stomach, I have no hesitation in saying that it is the most wholesome beverage of this climate. When I say beer, I do not mean home-brewed beer; the time has long since passed away when that mixture was considered preferable to brewers' ale. The science of brewing has been brought to such a pitch of perfection at Burton-on-Trent, where the water is peculiarly adapted for the purpose, that to compare the marvellously aromatic, delicate, and brilliant bitter ale of the Burton brewers with the dull, loaded, and unwholesome mixture called "home-brewed" is absurd.

Stout is a beverage useful in some cases, but in the majority of instances too heavy to be easily digested: if this kind of beer is preferred, a very light stout or porter is better adapted for the purpose. Bottled beers always cause distension from flatus, and can only be taken with benefit occasionally, in cases of exhaustion from over-fatigue, in which the carbonic acid gas which they contain seems to revive the system by the stimulus communicated to the nervous centres through the solar plexus; this is the largest ganglion or nerve mass of the sympathetic or involuntary nervous system in the body, situate just behind the stomach, and connected with the brain and spinal cord by nerves. The involuntary system of nerves and ganglia, or little centres of nerve matter, are the means of keeping the processes of life always going, without the medium of the will, whose instrument is the brain; a fortunate provision, so far as life is concerned; as, if dependent upon the will, the winding up of the clock would often be forgotten.

I should be sorry to be misunderstood on the question of the necessity for stimulating drinks. I am of opinion that the abuse of drink is the curse of mankind, and not the drink itself, and that it is as irrational and delusive to say that no man ought to take any stimulating beverage at all, because some folk besot themselves, as to say that no one

ought to eat any dinner, because some people are extravagant over their table.

It must be admitted that most people in health take more stimulants than they require, but they also eat too much in like manner, and reform in habits is needed as much in eating as it is in drinking; indeed, of the two vices, over-eating is decidedly the more dangerous to life in its results. But, on the other hand, numbers of highly conscientious persons injure their health, and render their own lives, and the lives of those around them, miserable, through their querulousness and irritability, in following out a mistaken idea of duty in abstaining from all alcoholic beverages, whereas a moderate use of these would supply food and support for the nervous and general systems, in a form readily absorbed, or taken up, in contradistinction to food presented to them in a form which they are unable to digest. I do not assert that querulousness and irritability are the inevitable result of abstaining from stimulants, but in some cases this total abstention produces that condition from insufficiency, just as in certain other cases the same result is obtained by excess. Large quantities of any kind of fluid are objectionable, tending as they do to dilute the gastric juice, and lessen its solvent power upon the various kinds of food taken into the stomach. For this reason it is not a good plan

for a man who intends to dine at six or seven o'clock to drink tea at four p.m. Ladies may do so with less injury, as in reality they alter the time of meals; that which is called luncheon is in reality their dinner, the afternoon tea follows pleasantly at its time, and the little morsels of food taken at the late dinner furnish an early supper, always a desideratum.

Here I must point out my reason for saying that a late dinner is more healthy than an early one; viz., that the meal is taken as a rule not after eight p.m., some four hours before retiring to rest, whereas people who dine early usually swallow a hearty supper within a very short period of going to bed, from which habit indigestion and nightmare result. I think it may be laid down as a rule that nothing but the lightest food, such as porridge, sago, arrowroot, gruel, etc., should be taken within three hours of bedtime, if sound and refreshing sleep is to be obtained.

With regard to tea, coffee, and chocolate, one or the other seems best adapted to our insular ideas of breakfast; coffee is the most astringent and stimulating, chocolate the most nutritious, and tea the most refreshing; the preference must rest with the individual taste, care being taken to ascertain which really suits the best. It is often beneficial to adopt an entire change in diet, taking coffee in

place of tea, or *vice versa*, and after a time changing again to chocolate.

Tea or coffee may be dispensed with after dinner, but one or the other is generally liked, and useful in the case of smokers, as a comfortable hour is spent with a cigar and cup of coffee, in which but for the coffee a glass or two of brandy and water would probably be thought necessary to moisten the weed. Tea and coffee are also liked by women. I think therefore that it will be long before they are discarded as evening beverages.

Effervescing or aerated waters are now largely consumed, and I think injudiciously, especially after food, their action under those circumstances being to introduce carbonic acid gas into the stomach, and to distend it, at a time when already sufficiently distended by food and the gas developed in digestion; in this way the process is interfered with, and pain and indigestion result. I feel convinced that a free use of soda, potass, or seltzer water is weakening to the stomach, however refreshing an occasional draught of them may be; and I am quite certain that if they are thought desirable, their use ought to be to dilute the wine or spirit taken in the intervals between meals, and that they always impede the process of digestion when various kinds of food and often different sorts of wine are present in the stomach.

There has recently been a great outcry with reference to the possibility of lead finding its way into these waters from the pipes, tanks, and machinery employed. The great source of safety to the public lies in the fact that manufacturers having had their attention directed to the possibility of lead poisoning from these sources, they will for their own sake be sure to ascertain the purity of the waters manufactured by them, in order to keep up their trade ; in case of any doubt arising, there are plenty of analytical chemists to whom samples could be sent.

There is, in my opinion, far greater danger of lead contamination in the water used for culinary and drinking purposes, inasmuch as many waters have the power of dissolving lead and holding it in solution, in which case it is perfectly invisible, and cannot be disposed of except by special filtration. Cases of lead poisoning are often mistaken, and referred to other causes, until the symptoms become prominent, when an examination of the water reveals the presence of lead.

Lead may also be held in suspension in water, and so obtain admission into our bodies by being carelessly drank in that way, or by being redissolved and taken up by vegetables, etc., in the process of cooking ; so that it behoves every one to ascertain the source of the water used, and its

mode of storage and distribution; the purer the water—that is, the more free it is from salts, and therefore more nearly approximating to rain or distilled water, the more readily does it dissolve lead; the presence of carbonic acid in water also increases greatly its solvent power upon that metal.

The symptoms of the presence of lead in the system are constipation, pains in the bowels, dullness of complexion and numbness of the limbs; but, as I have said, these symptoms may easily be referred by the sufferer to biliousness or other causes. The tests for lead are very simple, and may be found on reference to any handbook of chemistry; and if too scientific for general use, a pint and half bottle of the water sent to an analyst will speedily place the matter beyond a doubt.

Another and generally more fertile source of disease is the contamination of water with sewage matter; and although we have strong grounds for the belief that typhoid fever is propagated as the other fevers, such as scarlatina, small-pox, etc., by the special poison of each finding its way from the bodies of infected persons to those who are in health, but in whom, from certain predisposing causes, the conditions necessary for the germination and reproduction of the specific poison exist,

or, in other words, that specific fevers are not generated by the decomposition of animal matter, unless the specific poison which has been generated in the body of an infected person is present in such matter; still, we know that there is soakage from ashpits, dumb wells, etc., throughout the country, to an enormous and frightful extent; and it will readily be conceived that water thus laden with animal matters in a state of decomposition must produce a lowered, if not putrescent, state of the whole system in those who drink it, and thus render them infinitely more liable to succumb to the poison of any kind of fever on exposure to it; hence it is most important that the sources of water supply should be carefully examined.

The water ought in all cases to be boiled as well as filtered; and if the water used be drawn from a well, the greatest vigilance is necessary to prevent soakage from neighbouring sources of contamination into it. If such soakage occurs, the water must on no account be used for drinking or cooking purposes: for this reason the water supplied by water companies to towns is usually more pure than that obtained from wells, etc., in the neighbourhood of houses, the risk of animal pollution is so much less, and the water in consequence more wholesome. The action of boiling is to throw down salts, such as lime, etc., held in solution, and

to destroy poisonous germs which are often present, and which are afterwards removed in the process of filtering.

Having now touched upon the chief points of importance in connection with the beverages in general use, it is, perhaps, necessary to say respecting the various kinds of food, that although certain articles of food do form fat, and others form flesh, muscle, etc., and that careful abstention from these kinds of food produces a marked diminution in the bulk of those tissues, still a mixed diet is absolutely necessary to health, and it is more rational to keep off obesity by vigorous exercise, careful attention to the quantity of food taken, and the avoidance of large quantities of fluid, than by avoiding certain articles of food, and indulging largely in others. The nervous force has more influence, in my opinion, over the deposit of fat, than the particular kind of aliment taken. Persons of a nervous temperament rarely become fat, however good their powers of digestion may be, and whatever the fat-forming food they take, and few people become stout until after the period of middle life. When the nervous power begins to decline, less exercise is taken, more luxurious ease and freedom of living is indulged in, and increasing obesity is the result. My advice to stout people therefore is not to tamper with their constitution,

to take more exercise and less food, and by these means to obtain the desired diminution in bulk, without the omission entirely of starch, sugar, and fat, which furnish so important and vital a portion of man's daily food.

MILK AS A DIET.

I have frequently been asked my opinion of milk as a food for adults ; a few words on the subject may not be misplaced. As I have pointed out in the early portion of this book, milk contains in itself all the elements which are found in a combination of healthy aliment, hence under certain conditions it may be taken with the greatest benefit by adults, as well as children, and, in point of fact, forms one of the most important dietaries in the treatment of certain forms of disease of the stomach ; but in its use first principles must not be lost sight of. We know that cheese is the pressed curd of milk, obtained by heating it with rennet, which coagulates it, separating the curd from the watery portion or whey. Acids and astringents also produce a similar effect ; and if the curd be allowed to remain exposed to the action of those matters which separated it from the whey, it becomes still further solidified into a species of cheese. It will be readily understood that if this process unavoidably occurs, as it often does in

infants fed entirely upon milk, in spite of all the care bestowed upon their feeding, it is much more likely to occur in adults,—the juices of the stomach being so much more highly acid in them; in addition to which, other matters are often taken beside the milk, which alone would be sufficient to produce that cheesy condition. For this reason, many who are recommended milk, discard it almost immediately, as it produces pain and discomfort in the stomach, and constipation in the bowels. But the principle is not affected in the slightest degree. It is in the wrong application of it that the mischief lies: if due care were exercised to administer an antacid, such as lime-water, with the milk, and if other milky farinaceous foods were used, to form a regulated diet, such as oatmeal, tapioca, sago, arrow-root, and the various kinds of egg puddings, rigidly adhered to for some weeks, benefit the most marvellous would often be obtained, by thus giving the stomach that which it so often requires—rest from the hard and unjustifiable treatment with which in these high-pressure times it so frequently meets.

There are many cases of disease of the stomach in which solid, or even semi-solid, food is rejected immediately on being swallowed, and causes acute pain: in them, milk, with the addition perhaps of some good soup or broth, furnishes a diet on which

persons may live in tolerable comfort, and even gain in flesh.

GENERAL OBSERVATIONS ON DIET.

Although a mixed diet is necessary to maintain healthy existence, it is not enough that the necessary variety in the different elements of food shall be presented in the same compound forms; on the contrary, it is highly beneficial that variety in the whole dietary should be sought; and following this idea, I frequently order patients to change their usual beverages from bitter ale to porter or stout, sherry to claret or champagne, tea to coffee or cocoa, and so on, carrying out the same plan in regard to solids; for instance, leaving off sweets, pastry, etc., and substituting fruit, anchovies, olives, etc.

The same rule applies to exercise; the muscles may be so accustomed to a particular form of exercise, where only certain muscles are employed, that the other portion of the body may, and often actually does, waste from disuse; the viscera also are not affected in the healthy manner which occurs when exercise of another kind is taken. I do not include cricket or rowing in this, as all the muscles are more or less employed in both these exercises. I allude more particularly to walking, which is generally understood to mean exercise, and I feel

convinced that a man accustomed to walking may walk and walk until it really amounts to no exercise in the true acceptation of the term, whereas, if he got on horseback, and indulged in a smart gallop for half an hour, he would derive more benefit from exercising his muscles, bracing his nerves, and emptying his gall-bladder, than he could obtain in a whole day's walking; and the converse is also true, a long day's walking, as in shooting, is as beneficial to a man who spends most of his time on horseback, as horse exercise is to the walker. Exercise ought never to be taken immediately after a full meal. Rest of the nervous and muscular systems is then absolutely required. An hour or two after, a game at billiards, or a stroll, assists rather than retards digestion, when the first stages of solution of food have been performed.

The precise amount of food and exercise taken, after having thus explained the general rules applying to this portion of the subject, I must leave each individual to decide. The remarks made upon exercise apply to women as well as to men. They should walk instead of drive, ride instead of walk, and never, except as invalids, lie upon a sofa. The general question of meat and drink I may safely leave in their hands, as, with a few exceptions, their judgment in such matters is superior to any man's.

TOBACCO.

The consumption of tobacco having largely increased of late years, the physician is frequently called upon to give an opinion as to its use, and in forming this opinion, the fact of being himself a smoker or non-smoker has a good deal of influence undoubtedly upon his mind. Now as tobacco exercises a strong influence over the system generally, it is important that rational views of its influence shall be entertained. I shall endeavour briefly to touch upon the most salient points on this subject. We may, I think, find the cause of the increase in the consumption of tobacco in the feverish spirit of the age, which actuates every one almost, above the working classes, called working, I presume, on the *lucus a non lucendo* principle, because they do *not* work. It is quite certain that, as far as they are concerned, the increase in consumption of tobacco is caused by increased pay and short hours, by means of which they obtain more tobacco and drink, and have more time to indulge themselves in; it is in no way connected with excessive mental or bodily strain with them. But the soothing and tranquilizing action of tobacco upon a brain made irritable from over-strain, is so delightful, that to a smoker it becomes not only a boon, but a positive necessity. It, however,

does not always act in this way ; with some people it excites, and renders them highly nervous and irritable ; with others it produces nausea and great depression. With some, again, it does not affect the tongue or stomach ; in others it furs the tongue, and causes general upset of the stomach ; so that its action is varied with the individual. It is highly important that these points should not be lost sight of in forming an opinion as to the suitability of tobacco to any particular case.

Tobacco, like all other sedatives, is first a stimulant for a short period, and then lowers the pulse and tranquilizes the circulation, in persons to whom it is not obnoxious. Persons of a highly nervous temperament seem quite unable to tolerate tobacco even in its mildest form. The pulse is quickened, the stomach upset, sickness, followed by great prostration—all the symptoms of poisoning, in fact, present themselves. It is obvious that tobacco does not suit them. But because this is the case with some, it is absurd to say that it necessarily is so with all, and that tobacco is therefore injurious to the human frame. A moment's reflection upon the millions of human beings—indeed, the great majority of the male sex throughout the world—who smoke whenever they have the opportunity, and amongst whom no evidence of premature decay is traceable to the use of the “weed,” will

suffice to show the fallacy of such loose assertions. Excessive imbibition of alcohol will poison the strongest frame, and so will excess of tobacco, but it is not with excess that I wish now to deal. The use of tobacco is the point which we are discussing, and in forming our judgment, the following points must not be overlooked: (1) Constitutional temperament; (2) amount of exercise and general habits; (3) result as regards the nervous and digestive powers after the use of tobacco.

1. Constitutional temperament.

There cannot be two opinions that the florid-complexioned, or persons of a sanguine temperament, seem to derive most benefit from the use of tobacco. This is due to two causes; first, the strength of the nervous system; secondly, the activity of the circulation. The pulse is always quickened after food, and in these persons, in whom the circulation is most active, digestion is often impeded by the rapidity of the heart's action; and unpleasant symptoms, such as heartburn, acidity, wind, etc., develop themselves. The action of tobacco, tranquilizing the circulation, prevents or removes these symptoms; in addition to which, the tranquil condition of mind so necessary to digestion is also obtained. In these instances, then, tobacco appears to be of direct benefit.

But persons of phlegmatic temperament, of a

bilious temperament, or of a nervous temperament, are all most undoubtedly better without tobacco.

2. *Amount of exercise and general habits.*

Exercise in the open air enables smokers to consume more tobacco with impunity than they could do indoors ; it prevents therefore the too great depressing influence of large quantities of tobacco ; so that in regulating the amount of tobacco to be smoked, or whether any should be allowed, the exercise taken must always form an important element in the consideration of the subject.

3. *Result as to nerves and state of tongue and stomach after smoking tobacco.*

This is highly important. If, after smoking, a man feels well and comfortable, without dryness in the mouth, foulness of tongue, or unpleasant feeling of the stomach, feeling vigorous and active in body and mind, without doubt the tobacco exercises no injurious effect upon him. If, on the other hand, he feels ill, nervous, irritable, dry in the mouth, sinking at the pit of the stomach, giddy, sick, and averse to exertion, it scarcely requires demonstration that tobacco does not suit him.

I do not wish to argue that tobacco is a necessary of life ; far from it ; but it is to many a great boon. It has been stated that the increase of insanity is due to the increased use of tobacco. This is an

assertion easily made, but very difficult of proof. When we take into consideration drunkenness and various other vices, the cowardice shown in dealing with great social questions, and the rapid spirit of the age, driving people at headlong speed in their pleasures, as well as in their work, until the mind, long enfeebled, finally gives way altogether, I think we may discern glimpses of other causes of insanity besides tobacco. Indeed, a calm and unprejudiced consideration of the action of tobacco tends to the belief that it probably furnishes less assistance in filling our lunatic asylums than any other habit which can be named, not even excepting the drinking of strong tea.

I wish to state most emphatically, that tobacco is highly injurious to young men, prior to the period of maturity. It stunts and enervates at a time when everything bracing and strengthening is required, and in fact demoralizes a youth, who otherwise might become a *man*, in contradistinction to the cadaverous, narrow-shouldered, knock-kneed, crack-voiced specimens of humanity which we often see walking about now-a-days.

The ardent supporters of tobacco will say that this emasculated race is brought about by hereditary taint; my reply to that argument is, that the arm of the blacksmith, with its muscles developed to great size by use, by no means points to a race

of blacksmiths with extravagant biceps, but is a simple evidence of the natural consequence of work, viz., higher development. So the puny frame may be developed into strength and vigour, if only the hours spent in heated rooms, smoking tobacco, drinking grog, etc., were spent in a gymnasium, or in exercise in the field. I say therefore, Away with tobacco for the young. When a man reaches four and twenty, he may decide whether to smoke or not ; but if smoking is indulged in during the period of youth, symptoms most distressing both in present and after effects, are frequently induced, and never in any single instance is any benefit obtained. Youth is the time for development, both of mind and body ; and every hour not spent in developing the mind, or in rest, ought to be spent in supplying the body with the nutritious elements necessary for development in food, and in training, strengthening, and developing it by exercise. By these means the healthy vigorous tone of both mind and body is secured, so essential if a *man* is to be happy, and to render others happy in his course through life.

BATHING.

As all through the book I have insisted on the necessity of regular bathing for securing health, only a few words are necessary on the subject, and

these I will devote to the function of the skin, and its intimate connection with two of the most important organs of elimination, viz., the lungs and kidneys. The skin, then, is studded all over the body with millions of minute mouths or pores, which exhale or breathe out carbonic acid, in combination with water and other matters, in the form of perspiration, or sweat. In this respect the skin plays a similar part to that of the lungs, only that it does not take in oxygen to the extent to which they do. It is easy to understand that as a certain amount of matter of a similar kind is disposed of by these three great organs of elimination, the lungs, the kidneys, and the skin, if one of them should be from any cause impeded in its function, the other two have an undue strain suddenly cast upon them, in consequence of which mischief in them is originated. This is precisely what occurs when the skin is allowed to become clogged with hardened perspiration ; the lungs and kidneys have undue work thrust upon them, and liability to disease in them is established. The same result is produced in ordinary catarrh or cold, which in the first instance is a check of skin action, the mouths of the pores becoming closed by the drawing up, so to speak, of the minute muscular fibres surrounding them, as a result of nervous shock communicated to them by exposure to cold or wet. The obvious treatment

for this, at the onset, is a hot bath to stimulate the circulation, relax the skin, and cleanse the pores, and to induce sweating to clear them still further by warm fluids and sudorifics taken internally.

The skin, in addition to thus disposing of carbon, gets rid of a large quantity of fluid during the twenty-four hours. The bowels, kidneys, and skin are the chief means, with the lungs, of passing out of the body the large quantity of fluid taken ; and although the kidneys undoubtedly play the most prominent part in the performance of this function, still the skin also has its share of work. Hence the intimate connection between the kidneys and the skin, and the necessity for keeping the latter in a healthy condition.

THE DIFFERENT KINDS OF BATHS. THE HOT-WATER BATH, THE HOT-AIR BATH, AND THE COLD BATH.

A hot bath should be taken regularly once a week, for the purpose of cleansing the skin. For this purpose soft water should always be used ; if rain-water cannot be obtained, the water used should be boiled, and then cooled to a temperature of 96° Fahrenheit, or to the temperature of the blood ; after which the bather can increase it to 110° or 112° with safety, and remain in it for ten minutes or a quarter of an hour comfortably. A

good lather, with some fine soap, should be applied all over the body, and the bath should be taken immediately before going to bed; the finishing touch to the whole operation being given in the morning, when the cold douche or sponge-bath is taken on rising. If a hot bath is taken at any other time than just before going to bed, it should always be followed by the cold douche, as a means of preventing cold.

THE HOT-AIR BATH, VAPOUR BATH, AND TURKISH BATH.

The hot-air bath is seldom used in this country, except in the form of the Turkish bath. The vapour bath is more portable, and may be used with benefit in cases where a hot-water bath cannot be readily obtained, as in travelling, etc. It consists of a long skirt or petticoat, of proper material for retaining the heat and moisture, fastened round the neck, and kept off the shoulders by a hoop of cane or crinoline; a lamp in wire-gauze case, having a trough for water over it, is all that is requisite, with a cane-seated chair, to furnish the bath. These baths are very useful where calomel and other medicated vapours are necessary.

The Turkish bath is generally so well known, that a detailed description of it is unnecessary. The principle of it is that of subjecting the body

to a high temperature, then shampooing the skin, and so removing the perspiration and considerable quantities of the outer cuticle, after which the cold douche is applied, which refreshes and prevents cold from being taken on exposure to the air. As to the effect of the Turkish bath on the system, it must be conceded that where persons never take any exercise, and seldom have a bath, the Turkish bath must be a grand institution ; but although it cleanses, and by the shock of the cold douche refreshes, and causes a feeling of buoyancy at the time, still I am persuaded that if these baths are often indulged in, however agreeable they may be, the body is weakened by them. They were tried and abandoned in the case of racehorses, and we may fairly suppose that similar effects are produced by them upon the human and the equine frame.

The Turkish bath, therefore, in my opinion, ought never to be taken except under medical advice, and I firmly believe that in all cases where exercise can be freely taken, all the beneficial effects of the Turkish bath on the body can be obtained by it, with hot and cold baths at home, without any of the dangers or ill effects of the Turkish bath, which appears to me an idle and luxurious and therefore enervating substitute for vigorous exercise and regular cold bathing supplemented by a

good lathering with soap and water once a week. The difference in result between the one plan and the other is, that in the one you cannot by any possibility obtain any increment of either nervous power or muscular development, which in the other you certainly must do ; and in the latter case you also assist the elimination of matters from the system, by the stimulus given to the viscera from the exercise ; and also purify the blood by means of the increased quantity of oxygen taken into the lungs when the breathing is quickened, as it is by motion. All these advantages are obtained without any sudden strain being thrown upon the organs of circulation and respiration, the heart and lungs, and that delicate structure the human brain.

THE COLD BATH.

Of the cold bath I cannot speak in too strong terms of praise. It is at once the greatest luxury of life and the necessity of health ; no man, woman, or child ought to be without it, who is in a condition of ordinary locomotive power. There are certain exceptions to be made, of course, in the case of invalids, for whom the shock might be too severe. But the statements so frequently made to me by patients, when ordered the cold bath, in nine cases out of ten I have found to be "twaddle." "They cannot bear the shock ;" "they cannot get warm

afterwards," etc., etc. My answer invariably is, "There has been something wrong in your mode of carrying out the arrangements for the bath;" "the time occupied has been too long;" "the water has been too cold, or the activity in friction to the skin has been insufficient; but these are no arguments against the principle, if properly carried out." I am speaking now more particularly of men; but whatever may be said in favour of the cold bath for them, may be multiplied a thousand times in speaking of its benefits to women; and although it does not come strictly within the limits of my subject to discuss local ailments other than those of the stomach, still, having had a considerable experience of the diseases of women, I should be falling short of my aim if I did not again repeat that which I have pointed out in public and private practice hundreds of times, viz., that more uterine disease has its cause in an absence of cold water, than in anything else which can be named. And if prevention is in all cases better than cure, how much the more so must it be in cases for which there is no cure. It is the duty of every mother to educate her children to the cold bath, and if she delegates the boys to the authority of their father, to *see* that the girls take their cold or tepid bath every morning.

If these, with other directions which I have endeavoured to explain, are followed out, there will

be no dyspepsia (excepting of course cases of cancer, the origin of which unfortunately we know very little about); for dyspepsia, although, perhaps, the commonest form of ailment which we are called upon to treat, is the result of bad habits, and only admits of cure when these habits are changed. My object has been to point out the causes of dyspepsia, its different forms, and modes of prevention and cure, and the influence which healthy habits have upon them.

Having noticed the most prominent forms of dyspepsia occurring in adult life, we pass on to the period of

THE DECLINE OF LIFE.

HERE the vital powers begin to show signs of diminution in proportion to the vigour or weakness of the constitution, and the previous habits of life. This is the great period of dyspepsia, because the stomach, from a long course of ill-usage, has lost its elasticity, and its powers of digestion are consequently impaired to a greater or less degree, according to circumstances. It has been said, that "every man is either a fool or a physician at forty." This is one of those loose jingling expressions, in which there is some truth, although the statement is not absolutely capable of proof. I take it that

the meaning of it only applies to a man's own self, and not to others, and it assumes that with ordinary intelligence, at forty years of age, a man is able to decide as to what suits his constitution, and what does not, in which case, if he rejects those things which are hurtful, he is a physician (to himself), and if he does not, he is a fool; for to disregard the teaching of experience must be the height of folly.

In this period of decline of life, greater care than ever is necessary, because indiscretions are not so easily overgotten, the resilience of the system is impaired, and an ailment which would in earlier life have been but temporary and trifling, in these later days assumes a much more formidable aspect. In addition to increased vigilance in diet, a similar necessity exists in the matter of exercise and regularity in hours of rest, etc., and the hindrance to exercise presented during this period by increasing obesity must be zealously fought against and kept down. Of course it is better to prevent this condition of obesity at the outset by always adjusting the diet and exercise, so that the supply just meets as nearly as possible the demand; but this, I regret to say, is very seldom done in these days of luxurious ease.

As I have before pointed out, it is important to fix the hours for meals, and adhere to them, allowing

the stomach absolute rest in the intervals. The habit of constantly taking drops and mouthfuls between meals is a very fertile source of indigestion.

The quantity of food taken in the day is usually far in excess of that absolutely requisite to maintain the body in health; purgatives become necessary to relieve the body of superfluous matters. Such a system is manifestly irrational and necessarily injurious: it must be better to attain the desired result by exercise and self-restraint, than by idleness and indulgence in feeding, followed by purgation.

There cannot be any objection to the use of an occasional purgative or liver pill, or a dinner pill, composed of Turkey rhubarb and a little ginger, which is quite harmless, and, indeed, often very beneficial during this period of life; but the indiscriminate use of purgatives cannot be too much censured: a condition is brought about, of such obstinacy, that no action can be obtained without the use of strong purgatives, which may terminate fatally in a variety of ways.

Gout and rheumatism develop themselves especially during this period, and success in their management can only be attained by the greatest care in regulating the habits. It is useless to try to cure gout; it may be kept in check, but not by drugs alone, which are too often defeated by the habits of indulgence long since acquired, and not

to be easily broken through at this period of life. The only mode of dealing with gout is to enforce strict regularity of living, to unload the liver and kidneys by an occasional liver pill at night, and a tumbler of Friedrichshall, Carlsbad, or Pullnau water in the morning, fasting. This is simply to unload the system of the gouty poison, and no special treatment is of any avail which is not based upon this plan. The only other medicine needed is a mild tonic, such as the hydrochloric or nitro-muriatic acid, in water, or with a weak infusion of calumba.

A very similar system is needed in the treatment of rheumatism, which is, like gout, only another form of deranged digestion and assimilation of food. Both these troublesome diseases may be described as being a disposition to run off the metals at a certain curve in the journey of nutrition, one a stage farther on than the other. The most important matter in connection with the treatment of rheumatism is the wearing of new flannel next the skin from head to foot, woollen stockings or socks, and cork soles to the boots, between the outer sole and the welt. The flannel worn should be the very best obtainable; red flannel has no specific virtue other than its colour, which does not soil so readily as white; nor is there any ground for the idea that the peculiar value of new flannel

is due to sulphur or any chemical substances with which the flannel is dressed ; its value lies in its fluffy softness, which is lost on washing. I have no hesitation in saying that there is more value in new flannel to keep off rheumatism in this country, than in the whole pharmacopœia.

Regularity in habits, and the avoidance of cold and wet, will do a great deal ; but when rheumatism has become chronic, all that can be done specially is to wear new flannel. Lemon juice, which may be taken as the type of the acid plan of treatment, and potass in various forms, which constitutes the alkaline plan, furnish about a similar number of so-called cures ; and a result at least as satisfactory is obtained by no special treatment at all, so obstinate is rheumatism when once established in the system. From my own observation I can affirm that the wearing of new flannel has been productive of more benefit than any other plan of treatment, and I feel convinced that any lowering plan of treatment, after the acute stage of rheumatism has passed away, directly favours the formation of lactic acid (the rheumatic poison), the very condition which it is desired to prevent.

If any special plan of medical treatment be adopted either in rheumatism or gout, it must be a tonic one, to brace up and give tone to the

stomach and nervous system, and induce healthy assimilation of food, and so prevent the formation of lithic or uric and lactic acid, which are the materials of disease in gout and rheumatism respectively. Observation clearly shows the controlling influence of diet, exercise, and proper clothing over these trying diseases, which undoubtedly belong to the class of stomach ailments.

We now come to the consideration of the cause of disturbance of the function of the stomach, as indeed it is of the entire system, in women at this period, viz., the transitional changes in them, which mark the termination of their natural functions, popularly known as the "change of life." During this period, which is certainly the most trying that a woman has to pass through, the arrest of the regular clearing of the body, which has proceeded with more or less regularity for many years, is not to be borne without great strain upon the nervous and circulatory systems. It is quite unnecessary here to enumerate the various forms of trial which women have to bear during this period; they are well understood by themselves, and do not concern the other sex, with the exception of the profession, many of whom devote themselves specially to the treatment of female diseases; but it is well to point out to women passing through this most trying

time, that the symptoms are as varied as those of hysteria in younger women, and that, as I pointed out in the early part of the book, inasmuch as during the development of the generative power every ailment takes its cast and complexion from that grand motive influence; so when the time arrives for the loss of that power, a far greater strain is placed upon the entire organism, from the twofold cause that in the one case preparations are being made for the periodical cleansing of the system by the abstraction of so much blood from the circulation, assisted by the elasticity of youth; whereas, in the change of life, that blood previously removed is thrown back upon the circulation, and at the same time the elasticity of the nervous system, which alone could enable the body to bear safely this strain, has passed away. It will be readily understood, therefore, that whatever unpleasant symptoms of stomach or other derangement exist during this period (varying from months to years), they one and all partake of a marked uterine type, and the habits of life must be regulated by this knowledge. Persons of a full habit of body ought therefore to avoid beer, wine, and stimulants generally. A system of regular but gentle purgation should be carried out; and if there be much giddiness, a liver pill should be taken once every week. If there be sudden

congestion of the brain, smart purging should be produced without delay, and ice applied to the head, mustard to the feet and calves of the legs, and perfect rest in bed, in a darkened room, enforced. In cases of less urgency, but in which the constipation is very obstinate, the lower bowel should be cleared by an enema of warm water, gruel, or oil, on rising every morning; by this means the action of any laxative medicine taken is materially assisted. The regular use of the enema syringe is of the utmost importance in these cases; for, as I have already pointed out, nothing can be more irrational than the practice of taking purgatives by the mouth to remove hardened matter distending the lower bowel, when the enema syringe furnishes us with a means of removing the source of obstruction safely and comfortably in ten minutes, without the use of any medicine whatever. The flushings and rush of blood to the head, so distressing at this time, may be kept in check by attention to rules of diet, the avoidance of stimulants, regular purgation, and the use of the cold douche, especially to the head and neck; this may be applied as long as is agreeable, with perfect safety and benefit. The sickness may be controlled by the liver pill No. 7, or the mixture No. 9 will be found useful, if it be very persistent. Flatulence to an enormous degree

often forms a most distressing symptom ; if in spite of attention to the rules mentioned, it still continues, the mixtures Nos. 8 and 29, and the pill No. 30, will be found of service ; in cases where there is a tendency to syncope or fainting, the restorative mixture No. 31 usually restores the equilibrium between circulation and respiration in a few minutes.

In peculiar forms of dyspepsia, any of the plans which I have indicated may be followed ; but if satisfactory permanent results are not obtained, it must not be forgotten that it is as easy to arrest the sickness of pregnancy, or to cut short hysteria in a chlorotic girl, as it is to cure dyspepsia in a woman at the "change of life." These ailments all subside with the cause ; so long as that remains, so long must they, during which time much may be done to alleviate, but nothing by which it is possible to cure. I have indicated the chief points to be observed in the management of these distressing maladies, in addition to which patience is necessary to await the time when the burthen shall be taken away. We now come to the final division of the subject, that of

OLD AGE.

IN this period, as may be supposed, any or all of the various forms of dyspepsia, which inattention to diet or other circumstances have produced, manifest themselves persistently, and a system of nursing, very similar in its care to that which is indispensable to us in infancy, becomes necessary again in this last stage of mundane existence; and indeed in feeding, the fluid form of nourishment, or food of infancy, becomes again the food of old age; the necessities of the body thus being evidenced in as marked a manner as those of the mind, when this the period of second childhood has commenced.

Milk and eggs form a very prominent portion of a wholesome diet for the aged, with broth, soup, etc., and all kinds of soft farinaceous puddings, gruel, etc. If any solid food be taken, the mincer or sausage machine must be regularly used. Very portable and nicely arranged machines are made for this purpose, which will mince in less than one minute a sufficiency of any kind of meat placed in them, and being previously heated by pouring boiling water through them, the meat when minced is not cooled in passing through the machine. The coarseness or fineness of the mincing may be regulated at pleasure. These machines

are a great boon, and most important to all persons who from loss of teeth are unable to masticate their food.

Care must be exercised in the selection of vegetables for the aged, or considerable flatulence is produced. Carrots, turnips, peas, beans, etc., almost invariably produce this. They should therefore be avoided. Potatoes even are better mashed and rubbed through a horse-hair sieve. Cooked fruit well supplies the place of vegetables, and by its laxative effects assists the action of the bowels, by no means an unimportant item in the sum of health and comfort.

This is the period of life when a person who has lived temperately may take with pleasure and benefit the cheering glass of brandy or whisky and water; for, as I have previously pointed out, if the body has not been disorganized by prolonged excesses, this food for the nervous system is introduced directly into the blood, without any strain being placed upon the digestive powers; that is, without any indigestible matters being introduced with it, which is frequently the case when beer or wine is consumed. For this reason a glass of brandy or whisky and water suits old people better than either of those. At night the best food is a basin of sago, arrowroot, or gruel, with a couple of table-spoonfuls of spirit. This

furnishes a bland and readily digested food for the system during sleep, which process is encouraged by the slight stimulant, tranquilizing the nerves, and relieving that state of irritability so common in old age, and so opposed to tranquil rest.

Without wishing to recommend stimulants indiscriminately in any period of life, I am convinced that they are beneficial, and in some cases absolutely necessary, in old age, prior to which period I believe them (except in certain cases of severe prostration from illness) to be not only unnecessary, but positively injurious.

Great care must be taken to watch the action of the bowels and bladder: much trouble and danger may be avoided by attention to this. The bowels must be regulated by laxatives and the enema; but if there be any difficulty about the performance of the bladder function, medical aid should be sought immediately, as dangerous consequences frequently arise from decomposition of water in the organ. Attention to these general rules will be found useful in any or all the varied forms of ailment of the stomach in old age. More precise rules for treatment of any particular kind of dyspepsia will be found under the different heads in the part on Maturity.

There are two subjects on which I should like

to touch before leaving the subject of the stomach and its ailments. They are headache, in its different forms, and constipation.

HEADACHE.

THIS painful and most distressing ailment has a more intimate connection with the stomach than would at first sight appear, as I shall endeavour to show. It may be roughly divided into three heads—(1) bilious, (2) nervous, (3) congestive.

1. Bilious headache accompanies biliary derangement; that is, where the bile from some cause is not poured out in healthy quantity when secreted, but is carried into the circulation with the blood. This so laden with bile, passing through the delicate network of vessels in the brain, causes severe and persistent headache, only relieved when the blood is purified again of bile.

The nervous communication which exists between the stomach and liver and the brain is also an agent of pain when derangement of these organs exists. Bilious headache is accompanied by pains in the eye-balls, with deranged vision, also swimming and giddiness in the head, with more or less nausea and vomiting, coupled with inactivity of the bowels, and a loaded, high-coloured condition of urine. There is no immediate cure for this form

of headache ; the treatment is rest in a darkened room, and perseverance, in spite of sickness, with remedies calculated to stimulate the liver, and to cause a copious flow of bile through the bowels. For this purpose small doses of calomel, with Dover's powder, and the mixtures No. 9 and 10, will be found of service. Effervescent drinks, such as soda or potass water, tend to relieve the sickness, and may be freely used with ice, or iced water may be taken instead. Ice may also be applied to the head ; or evaporating lotions, in the absence of ice, will afford immense relief. A small mustard plaster applied to the pit of the stomach will relieve the sickness to a great extent. This sickness is often very distressing, and resists every effort to arrest it ; but time and perseverance will restore the vitiated secretion ; and when bile passes freely through the bowels, the attack is over, and the headache will have passed away.

2. Nervous headache partakes strongly of the character of a persistent form of neuralgia, and is due to highly irritable conditions of the nervous system, induced by over-nervous strain or constitutional peculiarity. The treatment, apart from the care which every one ought to take to ensure the regular discharge of the secretions, is essentially a tonic one. Mineral acids, mild bitters, with small doses of some good ferruginous preparation, such

as the citrate of iron and quinine, will be found most serviceable. These, with the cold bath, plenty of out-door exercise, and attention to the general rules as to diet, etc., laid down in these pages, will usually remove the tendency to this form of headache. In some cases, when the pain is very severe, a stimulant such as sal volatile or brandy and water will often remove it entirely, or a dose of morphia sufficient to produce sleep may be found to have a similar effect. Morphia, however, is too potent a remedy to be used by the uninitiated, or the sleep produced might be that from which there is no waking. In cases therefore where its use is indicated, it must only be taken when prescribed by the medical attendant.

3. Congestive headache, as its name implies, is accompanied by, or rather accompanies, congestion of the head. This condition may be the result of too much blood in the circulation or plethora in men, or women after the "change of life," or may arise from excess in the consumption of stimulants. Purgatives which directly remove fluid from the circulation, directly relieve this form of headache. This result is assisted by the cold douche to the head and spine, and the application of warmth to the feet, gentle out-door exercise, or rest in a darkened room, where, as soon as sleep is obtained, the headache often passes away entirely. A spare

diet without stimulants must be observed, and free purgation kept up.

The darting form of headache, usually termed neuralgic, which affects the brow, eye-ball, or one side of the head, is almost invariably caused by stomach and liver derangement, followed by cold, in persons predisposed to it. The treatment is rest in bed, the calomel and opium powders, and the effervescing or anodyne mixtures, followed by a smart purgative, under which plan the attack usually passes off entirely in forty-eight hours. When the pain is relieved, and the secretions become normal, small doses of quinine, with mineral acids, are of great service in preventing the disposition to recur.

All other forms of headache are hybrids of those which I have described, and must be treated under the general directions given, as each individual case appears to indicate; but it must never be forgotten that the stomach lies at the root of all of them.

CONSTIPATION.

ALTHOUGH this subject has been discussed as it presented itself in the different parts of the book, it will be well, I think, to devote a few lines to the further consideration of a matter of such great importance to the maintenance of health as the

prevention of a torpid and loaded condition of the bowels undoubtedly is. The bowels in health will act regularly every day ; and if this is not the case, their action must be ensured without loss of time. If more attention were paid to this, many would be in the enjoyment of vigorous health, who have been reduced to the condition of invalids by sheer carelessness and neglect or ignorance of one of the first principles of life.

The seat of accumulation which is a most frequent form of constipation is usually the rectum, or lower bowel, which, from its form and situation, is liable to great distension, especially in women. As a result of this distension, pressure upon other organs occurs, and displacement and disease in them is originated. In addition to these unhealthy alterations, the lining membrane of the bowel itself becomes ulcerated, inflamed, and sometimes fissured, causing the most acute pain ; and if there be any tendency to piles, they are sure to be much aggravated. It is quite possible for all these conditions to arise whilst there is plenty of bile in the bowels, the deficiency of which forms the chief cause of constipation not connected with distension of the lower bowel.

The remedy for this distension is simple, viz., the enema syringe, which will throw one or two pints of warm water into the bowel every morning,

without pain, trouble, or danger, and in a few minutes get rid of the accumulation. The use of the enema is well understood on the Continent, but is comparatively little used in England. The incalculable benefits following its use are therefore lost. Nothing can be more stupid than to give purgatives by the mouth to remove accumulation in the lowest portion of the bowels.

In addition to the importance of this use of the enema syringe for the relief of constipation, it is most valuable as a lavement or vaginal douche for women. The absence of cleanliness in this important respect is not only objectionable, as it must necessarily be in any part of the body, but also frequently gives rise to uterine and vaginal disease of most distressing character.

In cases where there is a yellow tinge in the skin, or other symptoms of biliary derangement accompanying constipation, a liver pill, such as No. 7, will prove of great benefit; and general laxatives, such as brown bread, fruit, oil and oily food, vegetables and fluids, will be useful in the way of diet. A very simple, but in many instances efficacious, plan is to drink a tumbler of cold water every morning on rising. Of all the different kinds of exercise, horse exercise is the most suitable for stimulating the action of liver and bowels.

If we once realize the fact that our artificial mode of life is opposed to health and vigour, the remedy is simple, viz., to live more naturally, ensuring the full exercise of the frame, in which man under natural conditions delights, as he does in bathing; and observing the simplicity in diet which is in his case a matter of necessity; we shall then approximate to perfect vigour, protected as we are from exposure to cold and wet, which enemies to health the savage cannot avoid. But as long as in the feverish struggle for the achievement of an illusory desire men and women work only their brains, and overload their stomachs with improper food, neglecting entirely all attempt at adjustment of supply to demand, they must pay the penalty sooner or later in the pangs of dyspepsia; in addition to which, although they might not have increased in weight, a measurement of the limbs and body reveals the melancholy fact, that whereas their legs and arms have shrunk to mere sticks, their bodies have increased enormously; so that, in fact, they cannot but feel that they are painful examples of matter in the wrong place. They will then perhaps endeavour to repair the mischief; but it is too late to do much good, when these conditions are present; they ought not to be allowed to arise; and I venture to hope that the perusal of my little work

will induce many to acknowledge the value of prevention, and the extent of our powers in that direction, as distinguished from cure, and the comparatively limited number of cases in which at present that is possible to us.

Before concluding I would caution sufferers from any of the various forms of dyspepsia against being led away by many of the unblushing falsehoods now so commonly promulgated as to certain panaceas or cures for every ailment. A moment's reflection suffices to show the absurdity of the proposition involved in these statements; viz., that all diseases are alike, and require the same treatment. I need scarcely say that if this were so, as far as medicine is concerned, Othello's occupation would be gone. Indeed, we should never die, except from accident, and the most dire diseases would be but trifles light as air.

NOTE.—I should be indeed ungrateful if I closed this little work without tendering my sincere thanks to Messrs. T. Carr Jackson and H. C. Bartlett. The idea of writing a simple treatise on the stomach originated in a conversation with the former, and the latter has most carefully revised that portion of the subject relating to food.

25, QUEEN ANNE STREET,
CAVENDISH SQUARE, *May*, 1875.

APPENDIX.

SIMPLE FORMS OF MEDICINE, USEFUL AND SAFE, FOR INFANTS DURING TEETHING.

No. 1.—*Emetic Mixture.*

Take of Ipecacuanha Wine	...	...	1 fluid ounce.
Simple Syrup	...	...	1 „
Water	...	...	2 „

Mix. One teaspoonful to be given every ten minutes, until vomiting is freely excited. This may be given to the youngest infant; and as age advances the dose may be increased.

No. 2.—*Mixture for Spasm or Wind.*

Take of Syrup of White Poppies	...	...	$\frac{1}{2}$ ounce.
Ditto Rhubarb	...	...	1 „
Dill Water	...	...	$1\frac{1}{2}$ „
Peppermint Water	...	...	1 „

Mix. One teaspoonful for a dose, and repeated at intervals of half an hour, until drowsiness comes on, then desist.

No. 3.—*Purgative Mixture.*

Take of Murray's Solution of Bicarb.

of Magnesia...	...	...	2 ounces.
Nitrate of Potass	...	...	$\frac{1}{2}$ drachm.
Tincture of Rhubarb	...	...	2 drachms.
Simple Syrup	...	...	1 ounce.
Peppermint or Dill Water	up to 4 ounces.		

Mix. Teaspoonful doses to be given every two or three

hours, until the bowels are freely moved, first clearing out the lower bowel with the enema syringe, using warm water, with soap, gruel, or oil warmed in a cup.

No. 4.—*Alterative or Liver Powder.*

Take of Powder of Chalk and Mercury 5 grains.

Dover's Powder ... 5 „

Compound Jalap Powder ... 10 „

Powdered Sugar ... 10 „

Mix and divide into six powders; one to be given at bedtime occasionally, especially when there appears to be a deficiency of yellow bile in the motions.

These are the only so-called “teething powders” which ought ever to be given by mothers, except under competent advice.

No. 5.—*Fever Mixture.*

Take of Ipecacuanha Wine ... 2 drachms.

Sol. of Acetate of Ammonia... 1 ounce.

Nitric Æther ... 2 drachms.

Simple Syrup ... 1 ounce.

Camphor Mixture ... to 6 ounces.

Mix. Dose, from a teaspoonful to a tablespoonful, according to age, every two, three, or four hours, as seems advisable. A young infant would require a teaspoonful, and a child of three or four years of age a tablespoonful for a dose.

No. 6.—*Cough Mixture.*

Take of Syrup of White Poppies ... $\frac{1}{2}$ ounce.

„ Squill ... 1 „

„ Tolu ... 1 „

Ipecacuanha Wine ... 1 drachm.

Water ... to 4 ounces.

Mix. Dose, one teaspoonful to one tablespoonful, according to age, three or four times daily.

REMEDIES FOR USE DURING AND AFTER THE
PERIOD OF YOUTH.

No. 7.—*General Liver Pill.*

Take of Blue Pill 12 grains.
Compound Rhubarb Pill ... 24 ,,
Podophyllin 2 ,,
Powdered Capsicum 6 ,,
Extract of Taraxacum to form twelve pills,
of which the dose will be one for a young person, two or
more for an adult.

No. 8.—*Stomachic Mixture.*

Take of Tincture of Rhubarb $\frac{1}{2}$ ounce.
Carbonate of Soda 2 drachms.
Sal Volatile 3 ,,
Essence of Ginger 1 ,,
Peppermint Water to 8 ounces.
Mix. Take two tablespoonfuls twice or thrice daily, or a
wineglassful on rising in the morning.

No. 9.—*Effervescing Mixture for Sickness.*

Take of Solution of Opium (Battley's) $\frac{1}{2}$ drachm.
Hydrocyanic Acid $\frac{1}{2}$,,
Carbonate of Soda 2 ,,
Tincture of Orange Peel ... $\frac{1}{2}$ ounce.
Syrup ditto $\frac{1}{2}$,,
Waterto 8 ounces.
Mix. Three tablespoonfuls every two, three, or four
hours, with one of the powders whilst effervescing.

The Powders.

Take of Citric Acid 90 grains.
Divide into six powders.

No. 10.—*Anodyne Mixture for the Relief of Pain.*

Take of Solution of Opium (Battley's) 2 drachms.

Sulphuric Æther 2 „

Essence of Ginger 1 „

Tincture of Cardamoms ... $\frac{1}{2}$ ounce.

Cinnamon Waterto 8 ounces.

Mix. Take two tablespoonfuls every hour, until pain is relieved.No. 11.—*Tonic Mixture—Mineral Acid.*Take of Dilute Hydrochloric Acid ... $1\frac{1}{2}$ drachm.

Chloric Æther 1 „

Infusion of Calumbato 8 ounces.

Mix. Take two tablespoonfuls thrice daily, between meals.No. 12.—*Tonic Mixture with Iron.*

Take of Tincture of Iron 1 drachm.

Infusion of Quassiato 8 ounces.

Mix. Take two tablespoonfuls thrice daily.No. 13.—*Citrate of Iron and Quinine Mixture.*

Take of Citrate of Iron and Quinine... 1 drachm.

Water 8 ounces.

Mix. Dose, one or two tablespoonfuls thrice daily, one for a child, two for an adult.No. 14.—*Cough Syrup.*

Take of Acetate of Morphia 1 grain.

Dilute Acetic Acid $\frac{1}{2}$ drachm.Syrup of Squill $\frac{1}{2}$ ounce.„ Tolu $\frac{1}{2}$ „

Spirits of Nutmeg 15 drops.

Mix. Dose, one teaspoonful for an adult, and repeated at intervals, until the cough is quieted.

No. 15.—*Dinner Pill.*

Take of best Turkey Rhubarb ... 48 grains.

Powdered Ginger ... 12 grains.

Mix. Divide into twelve pills. One or two to be taken daily before dinner.

No. 16.—*Iodide of Potassium and Colchicum Mixture.*

Take of Iodide of Potassium ... $\frac{1}{2}$ to 1 drachm.

Nitrate of Potass ... 1 drachm.

Bicarb. of Potass ... 1 „

Colchicum Wine ... 2 „

Spirits of Aromatic Ammonia 3 „

Syrup of Orange Peel... $\frac{1}{2}$ ounce.

Water ... to 8 ounces.

Mix. Take two tablespoonfuls every four hours, for two or three days, then omit for a day or two, in hepatic or renal derangement of a gouty character.

No. 17.—*Tonic Pills for Female Irregularities.*

Take of Dried Sulphate of Iron ... 36 grains.

Compound Aloetic Pill ... 24 „

Mix and divide into twelve pills; from one to six may be taken daily, until the stomach rejects them, then omit a day or two, and commence again until regularity is established.

No. 18.—*General Purgative Mixture.*

Take of Sulphate of Magnesia ... 1 ounce.

Tincture of Senna ... 2 „

Manna ... 1 „

Essence of Ginger ... 1 drachm.

Infusion of Senna ... to 8 ounces.

Mix. Take a wineglassful when required.

No. 19.—*Rhubarb Mixture.*

Take of Powdered Rhubarb	...	...	2 drachms.
Carbonate of Magnesia	...	...	$\frac{1}{2}$ ounce.
Aromatic Powder	...	...	$\frac{1}{2}$ drachm.
Peppermint Water	...	...	to 8 ounces.

Mix. A wineglassful for a dose.

No. 20.—*Tonic Pills.*

Take of Quinine...	...	...	12 grains.
Dried Sulphate of Iron	...	12	„
Compound Rhubarb Pill	...	12	„
Extract of Taraxacum,	a sufficiency.		

Mix. Divide into twelve pills; one to be taken thrice daily, with or without the tonic mixtures.

No. 21.—*Iodide of Iron Mixture.*

Take of Syrup of the Iodide of Iron	...	4 ounces.
Water	...	4 „

Mix. Dose, a tablespoonful thrice daily; for children the dose varies from one teaspoonful to a dessertspoonful. Useful in scrofulous cases in children, or syphilitic cases in adults, after mercury has been abandoned.

No. 22.—*Mercurial Alterative Pills.*

Take of Chalk and Mercury Powder	...	36 grains.
Dover's Powder	...	34 „

Mix. Divide into twelve pills, one to be taken thrice daily, until the gums become tender; or

Plummer's Pill, 60 grains.

Divide into twelve pills; one to be taken at bedtime, until tenderness shows itself in the gums. Useful in syphilitic dyspepsia, in conjunction with tonics and liberal diet.

No. 23.—*Iodide of Potassium and Sarsaparilla.*

Take of Iodide of Potassium ... 1 drachm.

Liquid Extract of Sarsaparilla 4 ounces.

Mix. Take one tablespoonful thrice daily.

No. 24.—*Mixture for Diarrhœa in Adults.*

Take of Sulphuric Acid (dilute) ... 2 drachms.

Solution of Opium (Battley's). 1 „

Chloric Æther ... 1 „

Essence of Ginger ... 1 „

Peppermint Water ... to 8 ounces.

Mix. Take two tablespoonfuls every two hours, until purging has ceased ; or,

No. 25.—*Aromatic Mixture for same.*

Take of Aromatic Confection ... 1 drachm.

Tincture of Catechu ... 2 „

Chalk Mixture ... to 8 ounces.

Mix. Dose same as foregoing.

In both the above mixtures the dose must be decreased with age.

No. 26.—*Astringent Mixture for Hæmorrhage.*

Take of Gallic Acid ... 1½ drachm.

Water ... to 6 ounces.

Mix. Take two tablespoonfuls every hour, until the hæmorrhage ceases ; or

Another Form.

Take of Sulphuric Acid (dilute) ... 2 drachms.

Solution of Opium (Battley's). 1 „

Infusion of Roses ... to 8 ounces.

Mix. Take two tablespoonfuls every two hours, until relief is obtained.

No. 27.—*Blue Pill and Colocynth.*

Take of Blue Pill 24 grains.

Extract of Colocynth (Corbyn's) 36 „

Mix. Divide into twelve pills, two for a dose.

No. 28.—*Beef and Brandy Mixture.*

Pound and rub through a sieve one pound of raw beef; weigh and mix with an equal quantity of brandy, and cork tightly. One or two tablespoonfuls for a dose. Useful in some cases of consumptive dyspepsia.

No. 29.—*Mixture for Flatulence.*

Take of Solution of Opium (Battley's) 1 drachm.

Spirits of Foetid Ammonia ... 2 „

Essence of Ginger ... 1 „

Peppermint Water (strong) to 8 ounces.

Mix. Take two tablespoonfuls every hour, until relief is obtained.

No. 30.—*Pills for Flatulence.*

Take of Compound Assafoetida Pill ... 60 grains.

Divide into twelve pills. Take one every hour, until relieved.

No. 31.—*Restorative Mixture.*

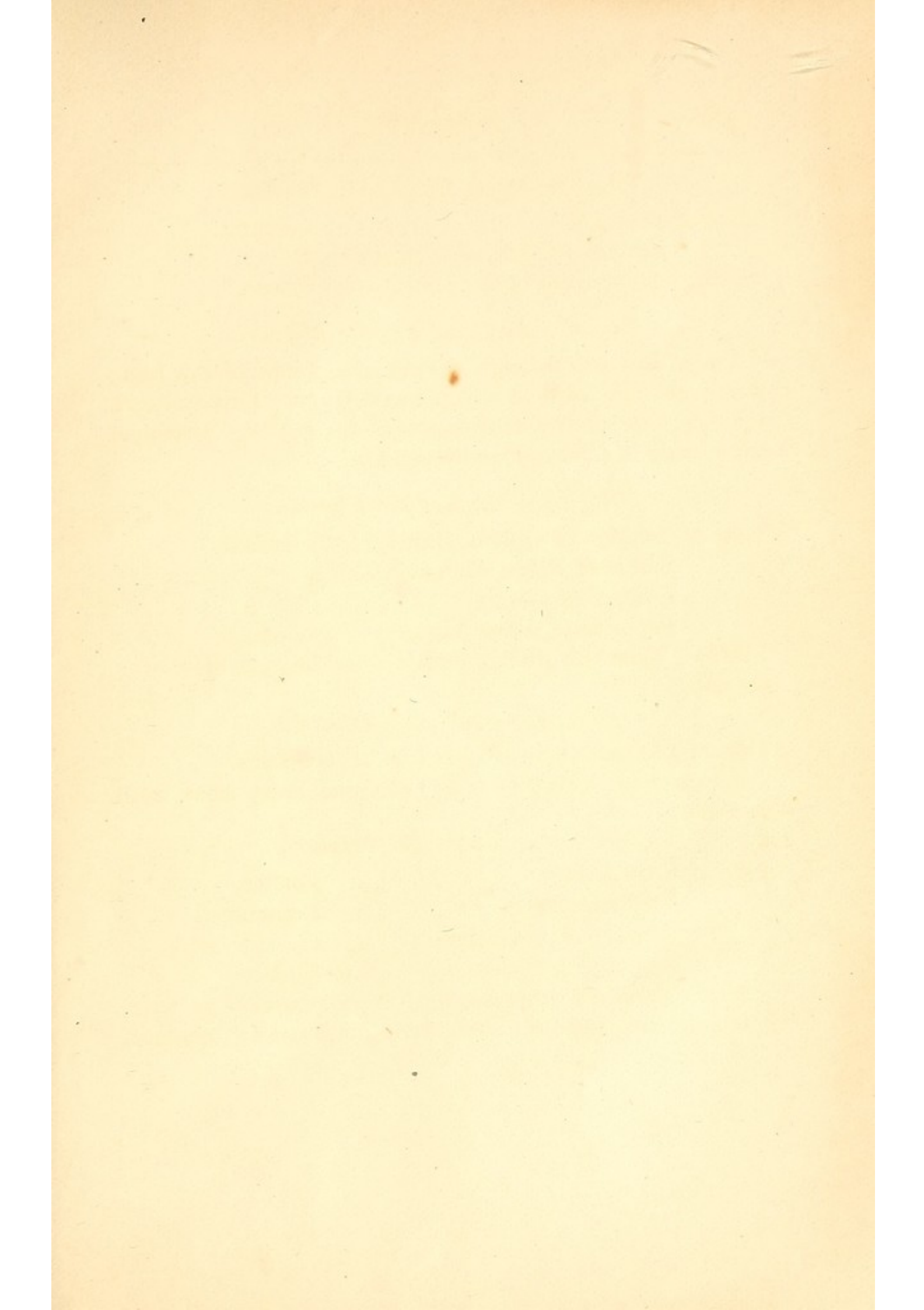
Take of Sal Volatile ... ½ ounce.

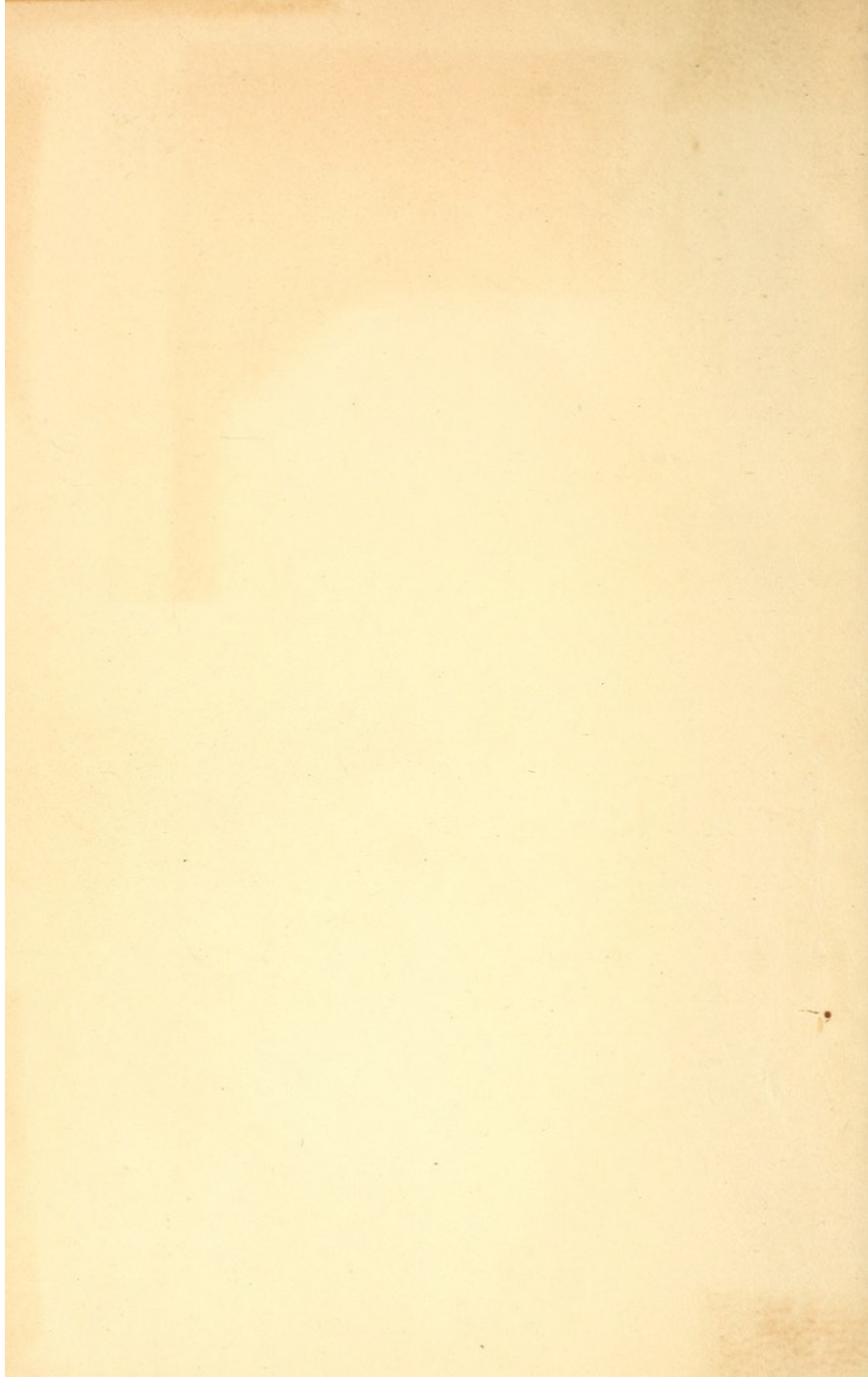
Sulphuric Ether ... 2 drachms.

Tincture of Lavender... 2 „

Peppermint Water ... to 8 ounces.

Mix. Take two tablespoonfuls every quarter of an hour, in faintness and all other weak states, until relief is obtained.





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