An answer to the enquiry, If it be the duty of every person to study the preservation of his health, what means are the most likely to answer that end, and to which recourse may be had by all classes of people? / [Disney Alexander].

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# ANSWER

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TO THE

Enquiry,

\*F IT BE THE DUTY OF EVERY PERSON TO STUDY THE PRE-SERVATION OF HIS HEALTH, WHAT MEANS ARE THE MOST LIKELY TO ANSWER THAT END, AND TO WHICH RECOURSE MAY BE HAD BY ALL CLASSES OF PEOPLE ?

## BY. DISNEY ALEXANDER, M. D.

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Member of the Royal Medical Society of Edinburgh, and of the Philological Society in Manchester.

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\* " Quemadmodum sanitas omnium rerum pretium excedit, omnisque " felicitatis fundamentum est, ita scientia vitæ ac sanitatis tuendæ omnium " nobilissima, omnibusq : hominibus commendatissima esse debet."

HOFFMANN.

\* Whereas health is of all other things the most precious, and the foundation of all happiness; so the science of self-preservation is the most noble, and ought to be recommended to the attention of all men.

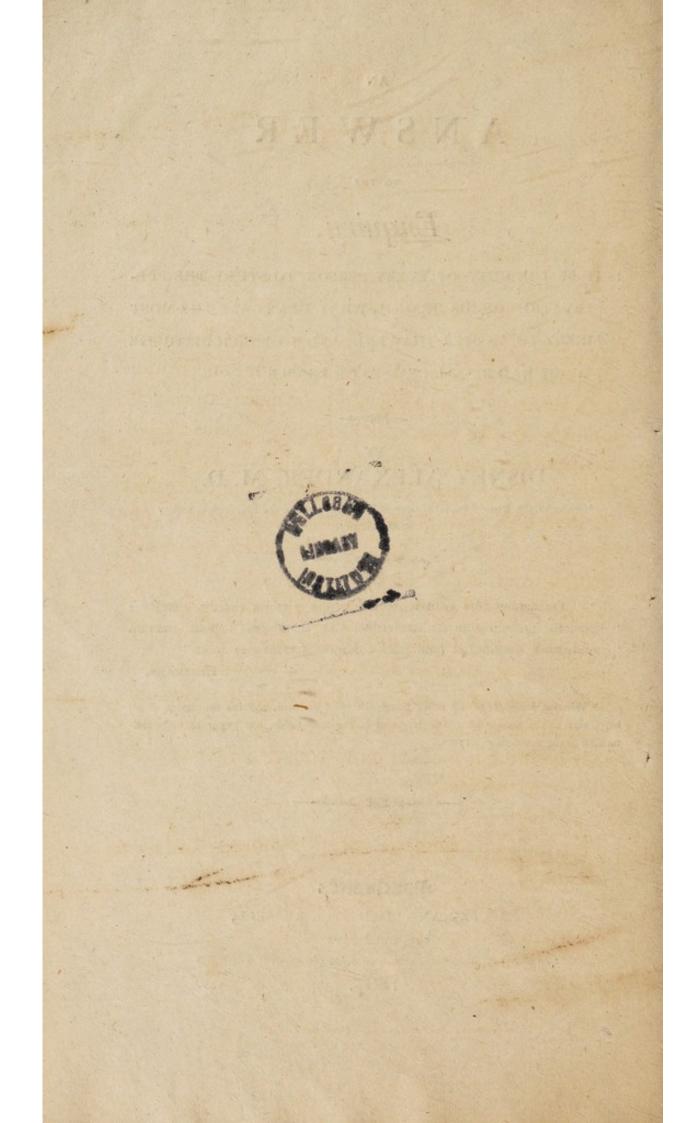
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# INTRODUCTION.

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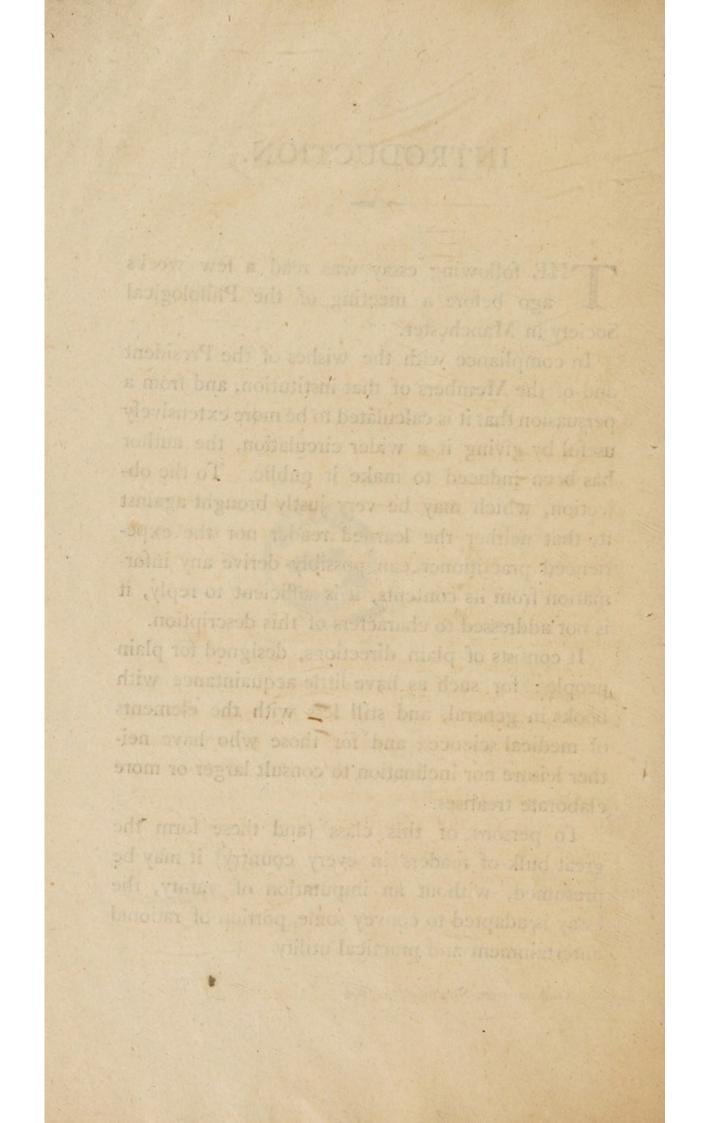
THE following essay was read a few weeks ago before a meeting of the Philological Society in Manchester.

In compliance with the wishes of the President and of the Members of that institution, and from a persuasion that it is calculated to be more extensively useful by giving it a wider circulation, the author has been induced to make it public. To the objection, which may be very justly brought against it, that neither the learned reader nor the experienced practitioner can possibly derive any information from its contents, it is sufficient to reply, it is not addressed to characters of this description.

It consists of plain directions, designed for plain people : for such as have little acquaintance with books in general, and still less with the elements of medical science ; and for those who have neither leisure nor inclination to consult larger or more elaborate treatises.

To persons of this class (and these form the great bulk of readers in every country) it may be presumed, without an imputation of vanity, the essay is adapted to convey some portion of rational entertainment and practical utility.

Oldham-street, November 23, 1804.



# ANSWER

### TO THE ENQUIRY, &c.

To occupy the time of the Society, in proving at large, the duty of self-preservation, might justly be deemed superfluous. Man<sup>\*</sup>from earliest infancy shrinks from pain, and shuns the approach of danger. To stifle this principle, were to violate the laws of nature, to defeat the very ends of our being, to incapacitate ourselves for the discharge of every relative and social duty, to exclude every avenue of enjoyment, and to render man a burden to himself and to society.

Nevertheless, it is subject of lamentation, that we not unfrequently meet with persons, who are either their own dupes or the dupes of others in this respect. Whilst some wantonly sacrifice their health at the shrine of pleasure, and impair their constitution by a life of dissipation, fearless of the consequences which they thereby entail, not only upon themselves but probably upon their posterity for ever; there are others who ignorantly or perhaps from a want of reflection, neglect to avail themselves of those means of prevention, which are actually within their reach, and which, if properly attended to, might frequently secure them from the encroachments of disease, and preserve to them that first and greatest of blessings, " mens sana in corpore sano."\*

\* A sound mind in a sound body.

What the most obvious of these precautions are, it is the design of this essay to unfold and illustrate: and although the subject may be thought by some to be too dry to be generally interesting, and too common to admit of much novelty of remark; yet I flatter myself, that such observations will occur in the course of this paper, as will not be deemed altogether unworthy of the attention of a society, whose generous object is not only the advancement of science, abstractedly considered, but the promotion of whatever is calculated to alleviate the sufferings, to prevent the miseries, and to benefit the condition of the human race.

To comprise all the topics connected with this enquiry within the scanty limits of an essay, is impracticable: to take a cursory view of its leading points, seems to be all that can be reasonably expected.

With this view, therefore, I shall confine myself to such rules or cautions, as appear to me most generally applicable and practically useful. And I doubt not, that in this discussion, I shall be cheerfully assisted by the judicious comments and liberal criticisms of my fellow-members, that we may each acquire some additional insight into a subject which so nearly involves no less our own welfare, than that of all who stand related to us by the ties of nature and the bonds of affection.

The first rule then to which I beg leave to call the attention of the society, respects the article of

#### DIET.

There can be no doubt that many of the diseases which prevail amongst men are the result of their own indiscretion, rather than the necessary consequences of the frame and constitution of their nature. This seems to be peculiarly the case with those maladies which originate from irregularity in diet, or from improper and unwholesome food. And indeed if we consider for a moment, how materially every part of the body is affected by the aliment we take; if we reflect that the fluids may be thereby attenuated or condensed, the solids braced or relaxed; and every animal motion increased or diminished, invigorated or weakened, according to the nature and quantity of our food, we readily perceive how much the preservation of our health depends on a well regulated attention to this point.

It is not easy to ascertain the exact quantity of food proper for every age, sex, and constitution. The best rule is to avoid extremes. Too much distends, oppresses and *indirectly* weakens the stomach, generates corpulency, and lays the foundation of a numerous train of nervous and flatulent disorders.

Too little aliment, on the other hand, induces a direct # debility of the whole system; and by its tendency to en-

\* The terms, direct and indirect debility may seem to require some explanation.

They were originally used by the late Dr. Brown, of Edinburgh, to express what he conceived to be different states of weakness, the one induced by the abstraction, the other by the excess of stimuli.

A certain portion of excitability, he contended, is assigned to every being at the commencement of its living state. The exciting powers acting upon this excitability, produce what he termed excitement; and upon a due balance or proportion betwixt the excitability and the powers which act upon it, health or a state of healthy action, he supposed to depend.

When the exciting powers have been too sparingly applied, the excitability becomes too much accumulated to be consistent with health; in this case diseases of *direct* debility ensue: when these external agents, on the other hand, have operated too powerfully, the excitability is too much exhaufted; and that state of di case supervenes, to which he gave the name of *indirect* debility.

There is indeed, a third state of the system, a kind of middle state, and widely different from either of the others, which he has described, and crease the excitability of the body, renders a person extremely susceptible of the action of cold, of contagious miasmata, and of other causes which operate in the production of disease.

And here I may be allowed to animadvert upon the pernicious custom of eating betwixt meals: and likewise upon the impropriety of eating at the same meal of a variety of dishes, a practice which not only naturally leads to excess, but greatly impedes the process of digestion, as it is well known, the stomach is enabled to prepare the best chyle from simple substances. "For my part," says an elegant writer of the last century, " when I behold a fashionable " table set out in all its magnificence, I fancy that I see " gouts and dropsies, fevers and lethargies, with other innu-" merable distempers, lying in ambuscade among the " dishes."

No less injurious to the constitution are the copious libations of wine, which generally crown the festive board, and are supposed to impart new life and animation to the social circle. Incalculable are the mischiefs which flow from this polluted source. How often have the best constitutions been ruined by it! And where it has not been fatal in itself, how frequently has it been the parent of other excesses, which in process of time have destroyed the health, if not terminated the life, of these deluded votaries of pleasure! How often has delirium, or a temporary derangement of the mental faculties, succeeded an evening's debauch! how repeatedly have excesses of this kind been productive of fevers, hypochondriacal affections, and a total loss of

which he has denominated a state of *encreased excitement* or encreased action; and to one or other of these classes he exclusively refers all the varieties of disease, to which the human constitution is subject. appetite for solid and nutritious food! And to say the least of their deleterious effects, how completely do they frustrate the great ends of social intercourse, the promotion of harmony, and the attainment of knowledge,

" That feast of reason, and that flow of soul,"

which constitute the very life of all rational associations; and which by agreeably interesting the *mind* contribute, indirectly at least, to the preservation of the health and vigour of the *body*!\*

Indeed wine and ardent spirits of every kind ought only to be resorted to on extraordinary occasions, and in a medicinal point of view. Persons in good health have no need of them. They are better and stronger without them. In proportion as they exhilarate, they afterwards depress; and the habitual use of them, even in what some would term moderation, by too rapidly exhausting the excitability of

\* The following lines from the pen of Cowper, are so exceedingly appropriate to this part of our subject, that I conceive no apology necessary for their insertion.

" Whom call we gay? That honour has been long

" The boast of mere pretenders to the name.

" The innocent are gay .- The lark is gay,

" That dries his feathers, saturate with dew,

" Beneath the rosy cloud, while yet the beams

" Of day-spring over-shoot his humble nest.

"The peasant too, a witness of his song,

" Himself a songster, is as gay as he.

" But save me from the gaiety of those,

" Whose head-aches nail them to a noon day bed :

" And save me too from their's whose haggard eyes

" Flash desperation and betray their pangs,

" For property stripp'd off by cruel chance;

" From gaiety that fills the bones with pain,

" The mouth with blasphemy, the heart with woe."

THE TASK.

the system, seldom fails to shorten the natural duration of life.

Equally prejudicial to health are the hearty suppers with which some people indulge themselves, previous to their retiring to rest. At this protracted period of the day, the muscular powers of the stomach, as well as those of the whole body, have suffered considerable exhaustion; and require rest before they can recover their susceptibility of action.

Three meals in a day are as many as nature requires, and as the stomach can sufficiently digest. Dinner ought to form the chief of these; and those persons who, after eating heartily of animal food in the middle of the day, habituate themselves to meat suppers, we commonly find complaining of disagreeable eructations, disturbed sleep, and a total inaptitude for food the following morning.

Hence the ancient distich, more remarkable, we must allow, for its truth than its poetry:

"Ex magnà cænà, stomacho fit maxima pæna:

" Ut sis nocte levis, sit tibi cæna brevis."\*

With respect to the *quality* of our food, nature itself dictates to us, that it should consist of a due proportion of animal and vegetable matter.

All substances containing much jelly, whether animal or vegetable, are nourishing: this alone affords nutriment, whilst the hard, watery, and saline particles cannot be assimilated or converted into chyle.

A diet wholly consisting of animal substances might, from the quantity of nourishment they contain, be supposed to be most conformable to nature; but as our appetite gene-

> \* Great suppers a very great evil we call, That your sleep may be sound, let your supper be small.

rally induces us to eat somewhat more than is necessary or absolutely required, we should imbibe too much alimentary matter, and become too full of blood, if we were to confine ourselves entirely to the use of these.

A diet, on the contrary, composed wholly of vegetables, especially where the constitution is naturally delicate, or where much exercise is used, would be equally improper. Perseverance in any length of time in such a course would in all probability give rise to scurvy, scrophula, or other diseases of weakness. The energies of the mind would partake of the debility of the body, and the whole system gradually sink into a torpid and insensible state.

What is the exact proportion of animal and vegetable nourishment, which is most conducive to health, cannot perhaps be fully ascertained; but we may admit it as a general rule, that two thirds or three fourths of vegetable to one third or fourth part of animal food, is the most proper.

Since, however, the constitutions of men are so various, that what will agree perfectly well with some, is manifestly detrimental to others, we must be governed in all these cases by circumstances.

For instance, those who are of a consumptive habit should scrupulously avoid all fermented liquors, and confine themselves to a diet chiefly consisting of milk and vegetables; whilst they who are predisposed to scrophula, and diseases of a similar nature, may be allowed the liberal use of beer, or wine, and animal food.

Persons of an extremely nervous and irritable habit, should accustom themselves to a nourishing diet. All highseasoned provisions, however, as well as salted meats, are to be avoided; a moderate proportion of ale or porter, or in lieu of these, a small quantity of generous wine may be allowed; and milk, cocoa, or an infusion of some kind of garden herbs must be substituted in the place of tea. It is no longer a matter of dispute, that a very large proportion of those nervous affections which are so prevalent in the present day, is the result of the daily and indiscriminate use of this beverage. It relaxes the coats of the stomach and intestinal canal, predisposes them to flatulency, and not only greatly diminishes the energy of all the digestive organs, but almost invariably, when drank strong, induces, in such temperaments as that which we are now describing, an habitual languor and listlessness of mind.

Persons of a sanguine and robust habit, of a firm and solid fibre, ought to indulge less in animal food, and use a larger proportion of vegetable nourishment. These may drink tea in moderation without experiencing the smallest inconvenience from it. They ought to be particularly sparing in the use of wine, beer, and other fermented liquors. They should accustom themselves to eat plentifully of ripe fruit; and water, lemonade, cyder, or perry, ought to constitute their principal drink.

Secondly, those who would attend to the preservation of their health, should recollect that impure

### AIR,

no less than unwholesome food, is a common cause of disease.

Air may become noxious in many ways, A damp or moist air\* obstructs the perspiration, and weakens the action of the heart and arteries. An extremely cold air dis-

\* It is well known that a moist air conducts heat with much greater rapidity than a dry one. "Whence," says the ingenious count Rumford, "I cannot help observing with what infinite wisdom and goodness, divine providence, appears to have guarded us against the evil effects of excessive heat and cold in the atmosphere: for were it possible for the air to be equally damp during

poses the system to acute or inflammatory affections. Excessive heat, on the other hand, generates putrid disorders, and induces an universal relaxation of the functions both of body and mind. Above all, great and sudden changes from cold to hot, or from hot to cold weather, are attended with more injury to the constitution, and are productive of a greater variety of diseases than any other state of the atmosphere. Hence we find that in this part of the country\*, the spring months are usually the most unhealthy, the weather during that period being often the most variable. And hence results the necessity of attending to a caution. which, however trivial it may appear, I beg leave to suggest in this place, respecting the practice so common among us of throwing aside flannel waistcoats, and other articles of dress, on the approach of summer. In this changeable climate, such a custom, I have frequently had occasion to remark, has laid the foundation of complaints, particularly of the chest, of a very alarming and inveterate nature.

Crowded rooms, if the air have not a free circulation, are injurious to persons of a delicate habit.

Houses erected on low marshy grounds, or too closely surrounded with thick woods; slaughter-houses, and burying grounds in the midst of large and populous cities, have

the severe cold of the winter months, as it sometimes is in summer, its conducting power and consequently its apparent coldness, when applied to our bodies would be so much encreased by such an additional degree of moisture, as to become quite intolerable : but happily for us, its power to hold water in solution is diminished, and with it, its power to rob us of our animal heat, in proportion as its coldness is increased " Hence likewise we see why it is that sleeping in damp beds, inhabiting damp houses, and sitting in wet clothes or wet shoes, are so very injurious to health. Hence too we learn why the evening air is so pernicious in summer and autumn, and why it is not so in the hard frosts of winter.

\* Halifax, the town where the author resided at the time when this paper was composed. a tendency more or less to contaminate the air, and beget infection.

Air which stagnates in mines, cellars, wells, &c. is extremely pernicious, and in some cases has been attended with sudden death.

All strongly scented objects vitiate the air: and since it has been proved by the experiments of Ingenhouz, and Priestley and others, that most plants emit during the night a large proportion of azotic or irrespirable gas, we understand why it is that flowers suffered to remain all night in a bed room, sometimes prove very deleterious in their effects. Nor is it less unhealthy to sleep in a room where a quantity of green fruit is constantly kept, as from its fragrance a portion of inflammable matter transpires which soon impregnates the air.

Some of the above observations will explain why fevers and other contagious disorders are more generally prevalent among the poorer than the richer classes of society; and also why these diseases so frequently make their first appear- . ance in those streets and alleys, which are contiguous to church yards; for as of all the preservatives of health, there is none more efficacious than that of a pure whole\_ some air, so there is not a more certain source of disease than a confined and vitiated atmosphere. As however, we remarked with respect to diet, that we could not lay down any certain rule applicable alike to every individual; so we observe in the present instance, that the same kind of air will not agree equally well with all constitutions, nor always even with the same person under different circumstances. For although generally speaking we may consider a dry, pure, and temperate atmosphere as best adapted to health, yet we must allow there are some people who breath more freely, and enjoy a better state of health in the centre of the smoke of London, and other large manufacturing towns, than in the most open and airy situations in the country.

I shall close this article with suggesting a few cautions respecting the best means of resisting the effects, and checking the progress of infection.

First, none should be permitted to visit patients labouring under infectious disorders, but those who are impelled by the calls of duty, affection, or necessary business.

Secondly, none should be admitted fasting or before breakfast. The afternoon is the fittest part of the day for visits of this kind; or if they must be paid in the morning, a glass or two of port or madeira ought previously to be drank.

Thirdly, the utmost attention to cleanliness in every thing relative to the patient, should be observed This is particularly requisite in camps, jails, hospitals, &c. The frequent change of linen, and the immediate removal of every thing of an offensive nature are absolutely necessary. The floor ought occasionally to be washed, and quick lime should be slaked in open vessels in the room, and renewed whenever it ceases to bubble on the affusion of water. The walls, or roof, should be occasionally washed with this mixture.

Fourthly, vinegar impregnated with aromatic herbs, as prescribed by the editors of the Edinburgh Pharmacopœia, frequently sprinkled on the floor and furniture of the apartment, is not only agreeable to the feelings of the patient, but is calculated to prevent the communication of the disease. For this purpose also a handkerchief sprinkled with camphorated spirit of wine, held occasionally to the nose, is an useful precaution to those who visit infected persons. If smoking be any where, or on any occasion useful, it may possibly be of some service in such cases as these. Fifthly, the free admission of pure atmospheric air\* is indispensably requisite. The absolute necessity for this caution is strikingly evinced by what is recorded to have happened at Philadelphia in the yellow fever of 1793. Of 2000 persons who were removed to tents erected in the fields, only 17 died in 25 days; whilst out of an equal number in the city 178 perished.

Sixthly, attention ought to be paid to the temperature of the air. Extreme heat might encrease the tendency to

\* The atmosphere is not, as was formerly supposed, a simple elementary substance, but is found to consist of two very different kinds of air, the one eminently conducive to the purposes of life, and named by Chemists oxygen; the other, which is nearly three fourths of the whole, destructive of life, and called azote or nitric gas.

On a due admixture of these two component parts of the atmosphere, depends not only respiration but the colour and circulation of the blood, and all the phenomena of life. And since in these cases the air is always more or less contaminated with the breath, excrements and perspiration of the patient, the oxigenous or pure part of it being diminished, in proportion as the azotic or irrespirable part is encreased, it has been proposed, in order to remedy this effect, to furnish the apartment of the sick with an artificial supply of this vital or oxigenous principle.

The late discoveries in Chemistry have informed us that this essential constituent of the atmosphere exists in a combined state in several of the productions of nature. The substances from which it may be most easily extracted, by means of heat, are red lead, calcined mercury, nitre and manganese. A ready way of preparing this gas is as follows. "To seven ounces of common salt add one ounce and a half of the oxide of manganese. Let these be pounded together and intimately mixed; then add water enough to form the mass into a thin paste. Place the size of a walnut of this paste in a tea cup; add by degrees an equal quantity of strong sulphuric acid; and a considerable portion of oxigenated muriatic gas will be extricated, which uniting with the tainted atmosphere, will correct its noxious qualities and render the contagion inert."

The simple process of mixing together in a cup a small quantity of nitre and sulphuric acid, may likewise be employed, if more convenient, to answer the same intention.

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putrefaction which exists in a greater or lesser degree in most infectious disorders. Extreme cold on the other hand is not only very ungrateful to the feelings of the sick, but by its debilitating property may encrease the virulence and promote the spread of contagion.

Seventhly, when a person dies from an infectious distemper, the body should be removed, where this can be accomplished, as soon as possible into a room appropriated to that use: it should be then wrapped in a pitched cloth, and the friends of the deceased should be desired to proceed to interment, as early as is consistent with propriety.

Eighthly, as infection is liable to be communicated by clothes which have been worn by the sick, such clothes ought never to be used, until they have been well washed, and thoroughly fumigated.

Ninthly, after the recovery or decease of a person labouring under an infectious fever, the roof or walls of the apartment in which he lay ought to be white-washed, the windows kept open during the day, and flowers or herbs inverted in water, placed in such parts of the room, as are more immediately exposed to the actions of the sun's rays upon them.\*

\* Whilst Dr. Priestley was engaged in a series of experiments to enable him to purify contaminated air, he discovered that vegetables answered this purpose most effectually. The experiment by which he illustrates the fact is this. Having rendered a quantity of air very noxious by mice breathing and dying in it, he divided it into two receivers inverted in water, introducing a sprig of mint into one of them, and keeping the other receiver with the contaminated air in it alone. He found about eight or nine days after, that the air of the receiver into which he had introduced the sprig of mint, had become respirable : for a mouse lived very well in this, but died immediately upon being introduced into the other receiver, containing the contaminated air alone. Tenthly, the establishment of Fever Wards, or houses of recovery for the reception of persons attacked with infectious fevers, is an institution which reflects immortal honour on its founders; and is better adapted to check the ravages and prevent the recurrence of these maladies in large towns, than perhaps any other plan which has hitherto been devised.\*

I cannot conclude this part of my subject without recommending in the most unqualified terms, the early practice of vaccine inoculation, as a safe, easy, and certain preventive of that most infectious, loathsome, and often fatal disorder, the Small-Pox.

The following facts may now be considered as fully ascertained, and when compared with the phænomena which the Small-Pox, whether in ts natural or inoculated form, generally exhibits, I conceive that nothing less than the most invincible prejudice or a total destitution of parental affection, can induce those who have the management of children to withhold from them the benefits of this most important discovery.

"First, the inoculated Cow-Pock scarcely deserves the name of a disease. It is not infectious. It has never yet been known to prove fatal

"Secondly, It occasions no other disease. On the contrary, it has often been found to improve the health, and to remedy those diseases under which the patient before laboured.

" Thirdly, it leaves behind it no blemish, but a blessing

\* For some of the preceding observations on preventing contagious fevers, I have been indebted to the late learned and ingenious author of Medical Ethics, and likewise to a well-written pamphlet on the subject published a few years ago by R. W. Disney Thorp, M. D one of the Physicians to the Leeds Infirmary. -one of the greatest ever bestowed on man.-A perfect security against the future infection of the Small-Pox."\*

Fourthly, by those who are solicitous for the preservation . of their health, due attention must be paid to

#### EXERCISE.

Exercise is of two kinds, bodily and mental.

By bodily exercise the strength of the system is improved; the circulation of the fluids promoted; the necessary secretions and excretions are performed; the whole mass of blood is cleared and refined, so that it cannot stagnate in the minutest capillary vessels; or if any obstruction should commence, it will be speedily overcome.

Thus we generally observe, the most healthy persons are those who accustom themselves to daily exercise; whereas they who lead indolent and sedentary lives, are subject either to glandular obstructions or to those diseases which indicate a weak and irritable state of the nervous and muscular solids.

Exercise should, if possible, be taken in the open air. This rule is peculiarly applicable to studious persons, to all who are naturally addicted to lowness of spirits, and to those who from the nature of their occupation, are necessarily much confined to the house, shop, warehouse, &c.

The most natural as well as the most salubrious mode of taking exercise is that of walking. Riding on horseback or in an open carriage, is perhaps to be preferred by the weak and valetudinary, as such persons by not being capable of strong muscular exertions, might otherwise be precluded from reaping the benefit of fresh air to that extent which was requisite to restore tone and vigour to their frames.

\* Vid. Med. & Physic. Journal. Vol. 9. P. 543.

Close confined carriages, however, of every description are by no means to be considered as affording that degree of exercise, which is necessary to maintain a state of healthy excitement; and ought almost exclusively to be appropriated to the use of those who undertake long journies, who travel in bad weather, or whose weak state of health will not permit them to bear stronger exercise, or a more free exposure to the open air. " How can persons," observes a popular writer of the present age, " who loll all day in easy chairs, and sleep all night on beds of down, fail to be relaxed? Nor do such greatly mend the matter who never stir abroad but in a coach, sedan, or other vehicles of this description. These elegant pieces of luxury are become so common that the richer inhabitants of great towns seem to be in some danger of losing the use of their limbs altogether. It is now below any one to walk who can afford to be carried. How ridiculous would it appear to a person unacquainted with modern luxury to behold the young and healthy swinging along on the shoulders of their fellow-creatures; or to see a fat carcase over-run with diseases occasioned by inactivity dragged through the streets by half a dozen horses!"

Exercise taken early in the morning is generally to be preferred, and that degree of it should be used which upon trial is found best adapted to increase the appetite, promote digestion, and enliven the natural spirits.

The exercise of skaiting in winter, and that of swimming\* in summer, are peculiarly beneficial to persons of a

" This is the purest exercise of health,

The kind refresher of the summer heats;

Nor when cold winter keens the brightening flood,

Would I weak shivering linger on the brink.

<sup>\*</sup> The beautiful author of the Seasons, seems to have formed a very extended idea of the salabrity of this diversion.

robust constitution; and even where the art of swimming has not been attained, cold bathing itself by its tonic quality is highly useful to the system; and may be advantageously employed in cases of general debility, which are unattended with any febrile or local affection.\* That of sailing, especially upon the sea, where it has not been deferred too long, has been sometimes known to arrest the progress of pulmonary consumption.

Exercise however of whatever kind, in order to be useful, must be taken in moderation. It should neither be too violent, nor too long continued; for by inducing excessive

> Thus life redoubles and is oft preserv'd By the bold swimmer, in the swift illapse Of accident disastrous. Hence the limbs Knit into force : and the same Roman arm That rose victorious o'er the conquer'd earth, First learn'd, while tender, to subdue the wave. Even, from the body's purity, the mind Receives a secret sympathetic aid."

> > Page 114, Aikin's Edit. of Thomson,

\* This caution is of the utmost importance, and demands very particular consideration.

Discases of general debility, independent of local irritation, are not so common as they are often imagined to be. And from a neglect of attention to this circumstance, numbers of people who have gone without advice to watering places for the benefit of their health, have soon discovered, to their cost, that they had completely mistaken the nature of their complaint: for instead of returning refreshed and invigorated, they have experienced not only an encrease of that weakness which they thought change of air, or bathing would have removed, but an accession of new symptoms far more alarming in their nature and probable consequences, than any which preceded them.

Had the limits of the Essay permitted me to enlarge upon this part of my subject, I might have inserted the history of two cases which have occurred to me in the course of my practice, strongly illustrative of the truth of the above remarks; in one of which the disease terminated in death; in the other, the patient with difficulty recovered from the attack of a severe peripneumony. fatigue, instead of strengthening, it tends very considerably to weaken the powers of the body.

Of this kind, is, in my opinion, the exercise of dancing; an exercise so fashionable, an amusement so assiduously courted and so warmly applauded, that I fear any attempt of mine to point out its pernicious consequences, and to restrain the practice of it, will be regarded rather as the effect of spleen and ill-humour, than as the result of sober and deliberate conviction. Certain however, it is, that the preternatural exertion of so many muscles, the quick inspiration of a tainted atmosphere, in a crowded room, the imprudent use of heating liquors or cooling drinks which generally accompany it, and above all, the sudden exposure to cold air which too frequently succeeds it, conspire to render this amusement a very prolific source of disease, and particularly injurious to females whose constitutions are delicate and who are subject to acute or inflammatory affections.\*

The exercise of the mind no less than that of the body is necessary for the preservation of health. Such indeed is the intimate connexion betwixt the two powers, that what-

\* The present fashionable mode of female dress contributes in no small degree to accelerate the evil effects which flow from this amusement. The author recollects one instance in the course of his observations, wherein the following lines of Dr. Young upon the subject under consideration, were but too literally fulfilled.

> "When pleasure treads the path which reason shuns, When against reason, riot shuts the door, And gaiety supplies the want of sense, Then foremost, at the banquet and the ball, Death leads the Dance, or stamps the deadly die; Nor ever fails the midnight bowl to crown."

> > THE COMPLAINT, Night 5th.

ever materially influences the one, will in a greater or lesser degree affect the other likewise.

Violent muscular exertion not only exhausts the strength of the body, but renders the mind torpid and inactive: and every one must have observed how greatly the bodily functions have been excited and invigorated by the presence of any extraordinary emotion of the mind, such as joy, love, anger, &c.

On the contrary, when the mind has not a sufficient stimulus to rouse it into action; when it is neither agreeably nor attentively employed, but from the want of a corresponding object to exercise its faculties, is suffered to droop and languish, debility and relaxation of the corporeal system presently supervene.

The exercise of the mind, however, may be carried to excess; and we may remark likewise, that the mental as well as the bodily powers require periods of rest, whereby they may recover that sensibility of which they had been partially deprived by intense application.

Too frequent, too profound, or too long continued reflection has been known to produce a state of stupor and insanity.

For the same reason all immoderate passions are hurtful. Objects which excite in an extreme degree, our terror, our hatred, or our resentment, ought studiously to be avoided. These by the violent excitement which they produce, or by the indirect debility with which they are followed, sometimes occasion phrenitis, apoplexy, or other convulsive disorders.

The depressing passions, on the contrary, when suffered to predominate in the breast, not only weaken the faculties of the mind, and indispose it for vigorous and manly pursuits, but enervate the body, impede the action of the arterial system, and render the frame peculiarly susceptible of the operation of cold, contagion, and other morbific causes.

To prevent the accession, and to counteract the violence of any of these passions, the best way is to keep the mind closely engaged in some useful or agreeable pursuit. Hence we learn, the superior advantages of those situations in life which more immediately call for intellectual exertions, and corporeal exercises. "Industry seldom fails to place us above want, and activity serves us instead of physic." In fact, none are so wretched as those who have nothing to do. They are useless to others, they are a burden to themselves<sup>\*\*</sup>. Constantly impressed with the apprehension of some imaginary evil, they either become the victims of despondency, or the dupes of ignorant and unprincipled pretenders to physic, whose sole aim seems to be that of enriching themselves at the expence of the follies and conceits of mankind.

As long as the various functions of the animal œconomy, the voluntary as well as the involuntary motions are performed with ease, and without interruption, we pronounce the body to be in a state of health; and so long as this state continues, it would be preposterous in the extreme to think of having recourse to medicine.

I have read somewhere of an Italian count, who from being uncommonly fond of taking medicine, found at length that he could swallow no more. Previous to his death, he ordered the following inscription to be placed on his tomb; designing it, I imagine, to operate as a warning to others. "I was once healthy—I wished to be better—I took medicine and died."

When, however, these functions are evidently impaired,

\* " Absence of occupation is not rest; A mind quite vacant is a mind distrest." and the motions of the body imperfectly performed, especially if such an interruption be attended with febrile symptoms, loss of appetite, and prostration of strength, application, in some form or other, ought to be made to

### MEDICAL ASSISTANCE.

The question therefore before us, (and this is the fourth and last head of our enquiry) is, how far or in what cases may every man venture with safety to undertake the treatment of his own complaint : in other words, what portion of medical knowledge may every man attain unto, sufficient to justify him in certain cases in being his own physician ?

I am far from recommending it to people to trifle with their constitutions, or to encroach upon the province of the physician, or the apothecary. Such a conduct can seldom fail to be productive of very pernicious consequences. By an improper treatment, the most trivial complaints may be converted into very serious and alarming disorders; and a moderate share of experience in the art of healing is sufficient to convince us that the most plausible hypotheses, the best digested theories are often fundamentally erroneous, and absolutely incapable of being reduced to practice.\*

Hence it will follow as a necessary and invariable rule, wherever it is practicable, that the cure of all diseases which are either dubious in their *nature*, violent in their *attack*, unusual in their *symptoms*, or obstinate through their *con*-

\* Of this class are the Elementa Medicinæ of the late learned but unfortunate Dr. Brown; a work remarkable for the simplicity of its arrangement and the ingenuity of its doctrines; but which, nevertheless, contains several essential errors, which if universally adopted, might be productive of very serious effects in practice. *tinuance*, ought solely and entirely to be entrusted to the management of those who have been regularly bred to the profession.

Nevertheless I contend, that there are certain elementary principles with respect to the knowledge of the human constitution, and the operation of different powers upon it, which EVERY MAN who has reason for his guide, and is capable of observation and experience, may, and ought, to be acquainted with.

There are three classes or descriptions of persons, upon whom this obligation is more particularly binding.

The first, are those who are precluded by the narrowness of their circumstances, from providing themselves and families with medical advice upon every occasion.

The second class, consists of those who reside in country places, at a considerable distance from any medical practitioner.\*

The third, are such as are frequently indisposed from trifling causes; who are neither so ill as to render it necessary to consult a physician, nor yet so well as to neglect

\* If clergymen who live in the country, and gentlemen who reside upon their own estates, would devote a small portion of their time to the study of medicine, it is incalculable how much good they might render to the poor families in their several neighbourhoods in this respect. The timely exhibition of a few doses of physic in the beginning of a disease with a few plain directions concerning cleanliness, regimen, &c. would be no degradation to their character, and might frequently prevent the spread of those infectious fevers, to which the lower classes of people, even in country villages, are sometimes subject, and which not unfrequently from neglect and inattention prove fatal to the youngest, most robust, and most useful part of the community.

The tribute of applause is never more justly due, nor more honourably conferred than when it is bestowed upon those who exert their influence and employ their talents in lessening the sum of human misery; who sit by the side of affliction, dispensing health and imparting comfort around them. with impunity certain medicinal precautions, on which their speedy restoration to health may probably depend.

The first caution, then, I would suggest, relates to the necessity of obviating a costive state of the bowels.

This is a much more common cause of disease than is generally imagined. In some instances, colic, in others violent inflammation have been induced it. From inattention to this circumstance alone, I have known slight colds, as they are termed, terminate in fevers of an highly inflammatory or malignant nature. On the other hand, incipient fevers, and other diseases of encreased action have been often cured in the course of a few hours by the exhibition of a laxative\*, assisted at the same time by rest, and a cooling regimen.

Persons who are generally costive should live much upon fruit, vegetables, broth or soup, or should eat bread made of a mixture of wheat and rye. They should avoid a sedentary life, and use moderate exercise.

When the body cannot be kept open without medicine, recourse must be had to such remedies as are most congenial to the constitution. For persons of a sanguineous temperament, the neutral salts, such as those known by the name of Glauber, Epsom and Rochelle, are most proper. Those who are addicted to nervous or flatulent disorders will find pills composed of aloes, assafcetida and ginger answer best. In cases of acidity or heartburn, calcined magnesia, with or without rhubarb, as circumstances may require, will be found serviceable. Persons who are subject to hæmorrhoidal affections should avoid aloetic and all drastic purgatives, and

\* In such cases nothing answers the purpose more effectually than rhubarb conjoined with vitriolated tartar, commonly called sal polychrest. A drachm or four scruples of each taken in a little water, is a dose proper for an adult. A second caution, not less necessary than the former to be attended to, respects the use of *heating liquors* or *stimulating drinks* at the commencement of febrile and catarrhal affections. Since in both these cases, the action of the heart and arteries is already excited beyond the healthy standard, it is evident that any additional stimulus (except indeed it produces a copious perspiration, which is by no means always the case) must only tend to aggravate the disorder; either by inducing a state of still higher inflammation, or by exhausting the excitability of the system to that degree which constitutes what we have before termed a state of indirect debility. In *this* case, a fever of a low malignant kind may supervene; in *that* rheumatism, pleurisy, or any other organic inflammation may be produced.

Thirdly, another error very common amongst the lower orders of people, and as I conceive extremely inimical to the constitution, is the practice of periodical bloodletting. Bleeding, like all other remedies, has been subject to much abuse; and perhaps in few instances more so than in that which relates to this absurd custom. "He who wantenly or capriciously squanders this vital fluid, obstructs, and as it were cuts off the sources of his support and regeneration. The most essential constituent parts of the human frame are formed from the blood; and though it be true that the blood evacuated by periodical venæsections, is soon re-produced by the activity of the vital powers, yet this restoration is only brought about with considerable efforts, and at the expence of the whole machine!" In most inflammatory affections, bleeding regulated according to circumstances may be useful and even necessary; but those persons who from a notion of preventing diseases, suffer themselves to be bled regularly once, twice, three times a year or oftener, whether they are indisposed or not, ought to be informed, that they are using means, which if persisted in, are likely prematurely to bring upon them those very diseases which they profess so much to dread and appear so solicitous to avert.

Wherever the habit has been already etsablished, it may be safely and easily overcome by substituting in the place of bleeding, at those periods, a gentle purgative or two, and adhering for some time to a less stimulating and more sparing diet.

Fourthly, as in all sudden attacks of violent pain, it is desirable to have it in our power to apply a remedy as early as possible, I would just mention, for the information more particularly of such as I have before described, that *blisters* will generally afford an almost immediate, and sometimes an effectual relief. With the same intention, *leeches* also may be tried; of where neither of these can be speedily obtained, recourse may be had to the application of a flannel bag loosely filled with scalded bran, or a large bladder containing such a quantity of hot water as will permit it to lie flat on the surface of the part affected. In all cases, however of this kind, where the pain does not quickly yield to the application, or which are marked by an inflammatory state of the system, medical aid ought to be procured as soon as possible.

Lastly, I call upon all, who value the preservation of their health, the soundness of their constitution, and the prolongation of life itself, to beware of *Quacks*.\*

\* One cause among others why quack medicines are in such general vogue, is the public manner in which the cures they are said to perform are puffed off and blazoned abroad, whilst the cases in which they prove ineffectual or injurious, are studiously passed over in silence.

Whereas in the routine of regular practice, recoveries the most remarkable and unexpected are only regarded as matters of course, excite no interest, make

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"In one respect," says a judicious writer, "we have little occasion to extol our own enlightened age at the expence of those which are so frequently and justly called dark. I allude here to the bold and artful designs of imposture, and particularly *medical* imposture. The host of empyrics and mountebanks, with which this nation abounds, who with a confident address and affected humanity so admirably succeed in imposing upon the public, who may literally be said to live upon the credulity of mankind, sufficiently evince that this is far from being the age of reason, that the temple of superstition is yet thronged with numerous votaries; that the human mind is still a slave to the most tyrannical prejudices; and that there is no readier way to excite attention and admiration than to affect the *mysterious* and the *marvellous*.

As matters stand at present, it is easier to cheat a man out of his life than out of a shilling; and almost impossible either to detect or to punish the offender. Notwithstanding this, people still shut their eyes, and take every thing upon trust, that is administered by any pretender to medicine, without daring to ask him a reason for any part of his conduct. Implicit faith, every where else, an object of ridicule, is still held sacred *here*. If I know myself, I may venture to affirm that I should be one of the last persons in the world to infringe the rights, or abridge, in any sense of the word, the liberties of my fellow subjects; but so fully am I con-

no noise in the world, and are too often quickly forgotten even by those who have most reason to remember them with gratitude.

Physicians themselves are not altogether free from the charge of having indirectly at least given a kind of sanction to practices of this kind. They certainly expose themselves to this censure, whenever they either prescribe any of these medicines themselves, or express their approbation of them to their patients; a custom which I am sorry to say has still too many advocates, even amongst practitioners of the most acknowledged celebrity. vinced of the pernicious effects which are daily disseminated throughout all ranks of people by the encouragement given to these pretenders to physic, that, were I in office, I should certainly consider myself justified in laying such a tax upon all medicines whatsoever of this description, as would place it completely out of the power of any but the

very richest of our nobility and gentry to purchase them.

The most effectual way, however, of checking the progress and counteracting the evils of quackery, is to diffuse a taste for science, and to promote candid and liberal discussion amongst mankind. Ignorance is the parent of empyricism, as well as of almost every other vice which has disgraced the annals and cast a shade over the history of the human race.

"The veil of mystery, (as the learned author whom we have before quoted upon this subject very properly observes) the veil of mystery, which still hangs over medicine, renders it not only a conjectural, but even a suspicious art. This has been long ago removed from the other sciences; which induces many to believe that medicine is a mere trick, and will not bear a fair and faithful examination. Whereas medicine needs only to be better known, in order to secure the general esteem of mankind. Its precepts are such as every wise man would choose to observe, and it forbids nothing but what is incompatible with true happiness."

S. Russell, Printer, Manchester.



