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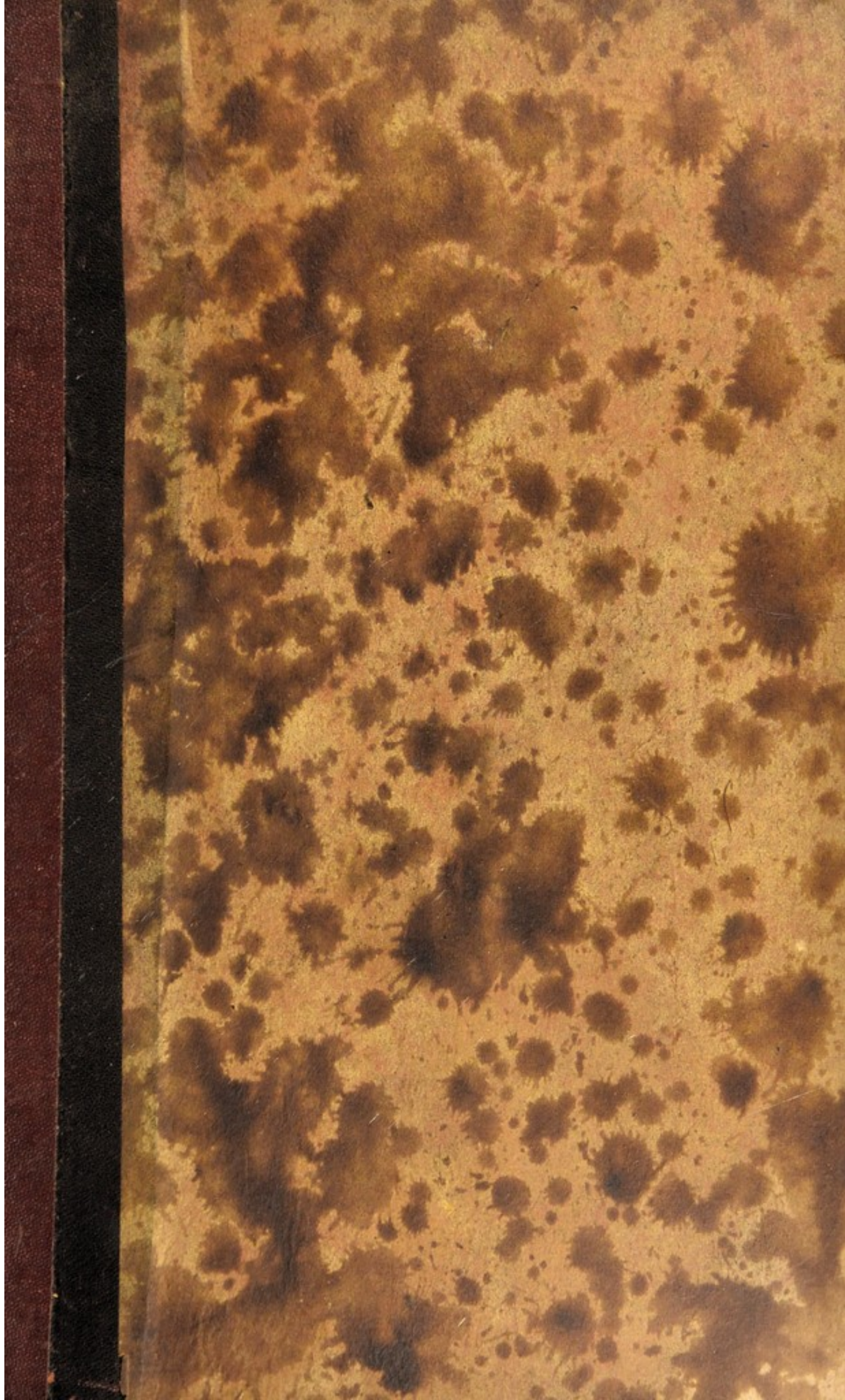
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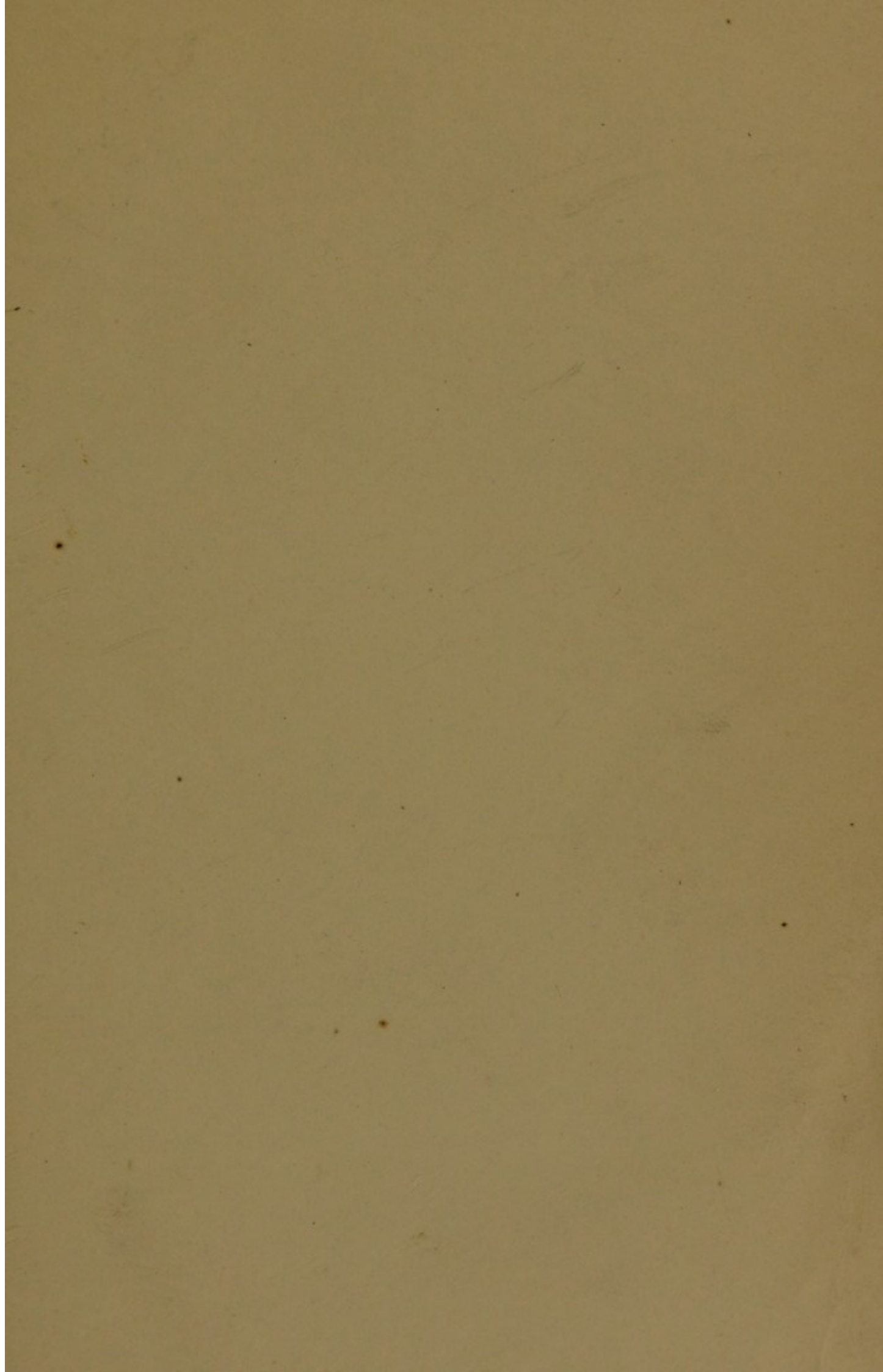


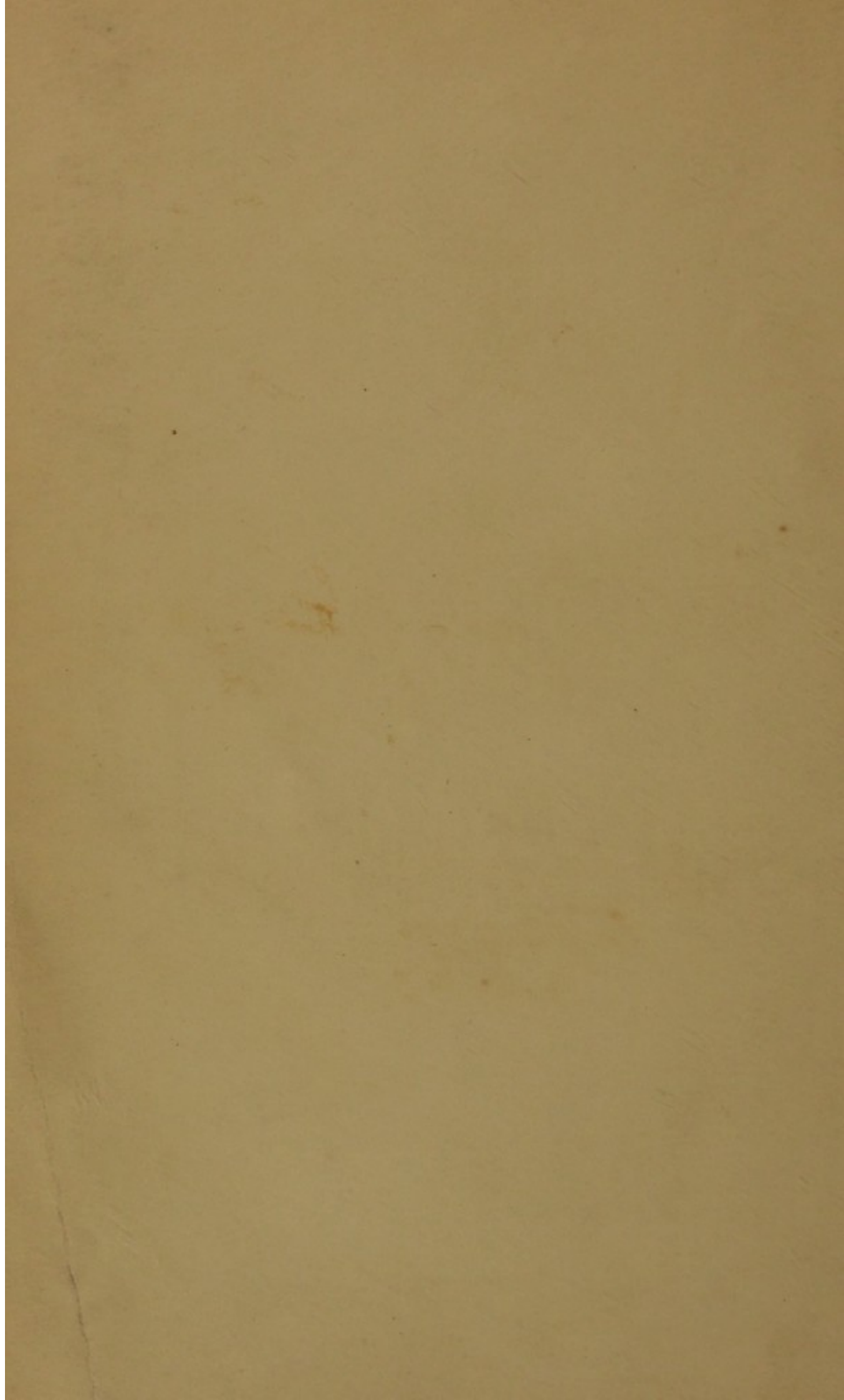
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E S S A Y

ON THE

C H A N G E S

PRODUCED IN THE

B O O D Y

BY

OPERATIONS

OF THE

M I N D.

BY THE LATE

DOCTOR CORP, M.D. OF BATH.

—Caput esse quasi, et dominari in corpore toto
—, quod nos Animum Mentemque vocamus.

LUCRETIVS.

L O N D O N :

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P R E F A C E.

THE discussion of subjects which relate to the operations of the Mind must be ever difficult, from the obscurity in which they are involved. Those which are comprehended in the present Essay, afford no certain data; the Author, therefore, may be allowed to assume such as his imagination suggests, provided their consequences do not lead to mischief in their application. On this presumption he ventures to publish what hath been the amusement of his leisure hours, hoping, that if useless, it will be at the same time harmless..

In discoursing on emotions and passions, it is not his intention to speak of the whole

or all the modifications of them, which are enumerated by the pneumatologist; but to confine himself to the consideration of those which may be deemed *purely mental*, as originating in the Mind, and not excited by, or blended with, corporeal sensation. Of this description are Hope, Joy, Anger, Fear, Grief, Anxiety.

As these are found to act considerably on the bodies of men, he is lead to treat of them; but as the best systems of Ethics have failed in producing those effects in society their authors have anxiously hoped for; we cannot suppose that what may be advanced concerning the operations of the Mind will be attended to in the mere temporary preservation of health.

However this may be, it is not improbable, that those who labour under the *immediate pressure of disease*, will readily listen to every admonition which has the remotest tendency

tendency to restore health : for as the school of adversity awakens the heart to sensibility, and disposes to acts of moral virtue, so the bed of sickness gives birth to reflections that induce the Mind to comply with salutary requisitions.

In speaking of the principle of life, the Author wishes to be understood, as speaking of a vital power given by the Creator of nature to animal bodies possessing certain organs adapted to retain it ; at the same time these acquire from it that invigoration which qualifies them for the purposes of action. Hence a certain state of organization is as necessary to the retention of the principle of life, as that principle is to support the action of organized bodies.

Having thus premised, the Author hopes the following Essay will be perused with that complacency and candor which its imperfections require.

C O N T E N T S.

CHAPTER I.

	Page
<i>Of the dependance of Mind and Body</i>	
<i>on each other</i> - -	I

CHAP. II.

<i>Of Sensibility and Mobility</i> - -	5
--	---

CHAP. III.

<i>Of simple Thought or Attention</i> -	15
---	----

CHAP. IV.

<i>Of Intention or Study</i> - - -	27
------------------------------------	----

CHAP. V.

<i>Of Hope</i> - - -	37
----------------------	----

CHAP. VI.

<i>Of Joy</i> - - -	48
---------------------	----

CHAP. VII.

<i>Of Anger</i> - - -	55
-----------------------	----

CHAP. VIII.

<i>Of Fear</i> - - -	64
----------------------	----

CHAP. IX.

<i>Of Grief</i>	85
-----------------	----

CHAP. X.

<i>Of Anxiety</i> - - -	94
-------------------------	----

ESSAY,

C O N T E N T S

CHAPTER I

Of the importance of the subject
to each other

CHAPTER II

Of the nature and history

CHAPTER III

Of the principles of the subject

CHAPTER IV

Of the nature of the subject

CHAPTER V

Of the nature of the subject

CHAPTER VI

Of the nature of the subject

CHAPTER VII

Of the nature of the subject

CHAPTER VIII

Of the nature of the subject

CHAPTER IX

Of the nature of the subject

CHAPTER X

Of the nature of the subject

APPENDIX

A N

ESSAY, &c.

CHAP. I.

Of the Dependance of Mind and Body on each other.

THE close connection which subsists between the Mind and Body, renders the welfare of either, of considerable importance to each. For as health on the one hand materially contributes to support a vigorous state of Mind, so on the other, animating or pleasing ideas essentially tend to preserve a vigorous state of Body.

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By disease the mental faculties are in general more or less impaired, and by the operation of any distressing or unpleasant reflection the corporeal functions are liable to be interrupted, or oppressed. This influence of the Mind on the Body is not, however, universally prevalent, or equally apparent in every country; for among the hardy tribes of men whom the refinements of civilization have not reached, the Mind itself being of an austere disposition, and insensible to the more tender and sympathetic emotions, is unable to affect the functions of bodies which are equally insensible: but in those parts of the world where the Mind is humanized by the culture of social and benign virtues, and the bodies of men are softened by the operation of climate, every *interesting thought* may occasion some change in the animal economy. The truth of this observation will, I doubt not, be confirmed by the testimony of most persons who call to remembrance particular occurrences; and were we acquainted with the private history of individuals, we should, I apprehend, be enabled to adduce many examples in support of

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of it. In my professional capacity, I have often seen patients, where bodily complaints originated purely from a discomposed state of Mind, in consequence of the frequent interference, or perpetual operation, of some interesting reflection.

If we carry our observations farther, and consider the strong emotions and passions which sometimes arise in the Mind, and the constant agitations of Body, we must conclude, that by *their* operation the more delicate organs of the human system will be affected. Who, for example, can look on a man who is agitated by a violent paroxysm of anger and resentment? or on one who totters under the apprehension of some dreadful calamity, without readily conceiving that by mental perturbations, health may be interrupted or totally destroyed?

Sanctorius, who by statical experiments endeavoured to ascertain how far certain conditions of the Mind were able to affect the Body, observed, that the latter, even in a state of quiet, perspired more, and became

lighter, when the former was much disturbed, than when it underwent the most rapid movements, provided the Mind were at the same time disengaged and free.*

The Body, however, is not only liable to be affected by interesting thoughts, and by those more especially which raise commotions and passions in the Mind ; but also by the exercise of the mental faculties, on subjects which have no particular reference to our happiness or misery. This position we hope presently to illustrate by some reflections on the changes induced in the system, by a simple attention of the Mind to what is passing, as well as by a close and steadfast application of it, in the hours of study. For this purpose it will be necessary to treat of those peculiar properties of the human body, on which its functions chiefly depend.

* *Corpus quiescens magis perspirat et minoris ponderis fit, si animo vehementer agitentur, quam si celerimè corpus moveatur, animo permanente otioso.*

C H A P. II.

Of Sensibility and Mobility.

IT is well known that the functions of the human machine depends chiefly on those parts of it, which are endowed with Sensibility, and Mobility, or Power of motion.

The word *Sensibility* is in general understood to express a property of the body, by which applications to it excite sensations in the Mind. I shall, however, employ the word to signify also the faculty of *simple sensation*, or a certain capacity of feeling, which *living* animal matter possesses, unattended by *consciousness*. It is this faculty of *simple sensation* that disposes the involuntary organs to be affected by their *natural* stimuli, and the existence of it appears to be absolutely necessary to render moveable parts irritable, or capable of being excited to action by causes applied. This opinion has, I think, been very ably maintained by Dr. Whytt, in
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his controverſy with the celebrated Haller, who, in delivering an oppoſite doctrine, ſeems to contradict himſelf, when he ſpeaks of parts which are *not irritable*, as not *feeling* or *perceiving* the acrid matter, or other ſtimuli applied to them. We never, as Dr. Whytt obſerves, talk of *irritating* a ſtone or a piece of wood, a tree, or indeed any thing that is deſtitute of *feeling*. Irritability, therefore, in the common acceptation of the word, muſt imply *ſome kind of feeling*.

Gaubius obſerves, that we may conceive two faculties to exiſt in the living ſolid; the one a faculty as it were of *Senſe*, by which it perceives in ſome peculiar manner, the action of a ſtimulus, the other a faculty of motion.* It is therefore evident, that this Profeſſor alſo thought that moveable parts ſhould poſſeſs *ſome ſhare* of Senſibility, to qualify them to receive thoſe impreſſions which are neceſſary to excite their action.

* *Duas in ſolido vivo concipere facultates licet ; alteram quaſi ſentiendi qua ſtimuli actionem ſuo quodam modo percipit ; alteram movendi qua ſeſe contrahendo vim vi opponit ac repellit veluti quod quietis ſuæ ſtatum turbat.*

It is very certain that those moveable parts which are *most sensible* are *most irritable*; so that if at any time the sensibility of a muscular organ be increased, its action is oftener and more readily excited than usual. When, for example, a part is inflamed, the sensibility of its arteries is so increased, that the stimulating influence of the blood occasions in them the most accelerated motion.

When the sensibility of the stomach is increased by inflammation, it becomes so irritable, that not only the stimulus of common food acts violently upon it, but even the mildest kind of liquids throw it into the most convulsive disorder. Those stimulating powers which are designed by nature to act on other muscular organs, do also, when the sensibility of these is increased, excite their action too frequently. This is the case when the sensibility of the intestines, or bladder, is increased; the evacuations of the former become immoderate, and the efforts of the latter to empty itself, too frequent and excessive. On the other hand, if the Sensibility of moveable organs be *diminished*, those stimuli which are appointed

to excite their proper action, will be insufficient, and the system thereby exposed to all the evils of stagnation. We therefore conclude, that the *healthy state* of an organ may be primarily destroyed, by any cause which *increases*, or *diminishes to a certain extent*, its Sensibility. This, however, must only be considered as *one way* in which the healthy condition of an organ may be changed; for although its Sensibility be neither increased nor diminished, its health may be destroyed by an increase, or diminution, in the force of those causes to which it hath been accustomed, or by the application of others, to which it hath never been exposed.

That portion of Sensibility which is sufficient for *simple sensation*, as well as that degree of it which renders us conscious of impressions, is dependant on the brain; for although parts capable of *simple feeling* may retain it some little time after they have been separated from the body; yet their nerves, which are emanations or appendages of the brain, require a constant communication with that organ to support this faculty.

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The same observation also holds good with respect to the power of motion. The muscles, it is true, are so constructed as to be peculiarly fitted for motion ; but were their communication with the brain through the nerves cut off, their construction would be of no avail. Physiologists, therefore have, I think, too hastily concluded, that muscular organs possess a *vis insita*, or inherent power of motion, totally independent of the brain. A muscle, by contracting after it hath been separated from the body, seems, indeed, to favour such a conclusion : but why may not the contraction happen merely from a *retention* of that motive principle which the muscle derived from the body, whilst it was connected with the brain ? I cannot indeed avoid entertaining an opinion favourable to this idea ; for the more I reflect on the different conditions of the body, when the brain is either afflicted with disease, disturbed by passion, or is in a state of health and tranquillity, the more am I induced to consider that organ as the source of all motion, as well as sense. I shall therefore offer the subsequent reasons for the sentiment I adopt :

1st. I consider the brain as the source of motion, because no organ, after its nerves are compressed or destroyed, continues to act as it did before. In either case the action of it becomes weaker, and in a very short time it fails to be excited by the strongest applications.

2dly. Because the action of a muscle may be produced by applying the exciting cause to the nerve *only*, which *leads* to it.

3dly. Because when there is a diminution or loss of motion, whether it be in a voluntary or involuntary organ, we find that it is proportionate to the compression or injury the brain or nerves labour under. Hence, if the brain be *universally* compressed, or its power *wholly* destroyed, all motion ceases.

4thly. Because the nervous matter is so closely interwoven with the muscular fibre, that it cannot be separated or even distinguished from it. Every application therefore to a muscle must necessarily affect the nervous matter. This being the case, we may,
I think,

I think, rationally infer, that the nerves which enter the composition of a muscle dispose it to contract, since we know by experiment, that a stimulus applied to nerves at a distance from the organ with which they are connected, will excite motion in it.

5thly. Because the brain seems to be the organ first endowed with life, that first evolves and arrives at full growth, earlier than any other part of the human machine. We may therefore, I think, be allowed to consider it as the receptacle of life, possessing at the same time, a power to transmit the *vital principle*, the efficient cause of motion, to the other organs of the body.

This opinion I am disposed to consider as founded on fact, although I can neither explain the *nature* of the *vital principle*, nor the manner in which the brain acts in the transmission of it. It would seem, however, that according to the degree of excitement or increased action of the brain, the vigour of the whole system is either proportionably augmented or diminished. Health, therefore, may not only be interrupted, but life

itself be destroyed by either too weak or too strong an action of that organ.

The excess of vigour occasioned by too great an excitement of the brain, is, in general, only productive of disease when it is either partial, or confined to the involuntary organs. This happens in what is termed the *synocha*, or inflammatory fever.

The vigour of the heart is in that disease so increased as to disturb the order of secretion and excretion, and by propelling the blood with too much violence, it hath sometimes produced rupture in a part of the vascular system. Hence hæmorrhages of various kinds often happen when the inflammatory diathesis is present.

On the contrary ; when the action or power of the brain is diminished, or wholly destroyed, the body is either partially or universally deprived of that supply of *vital principle* which gives it motion, or preserves its vigour. Hence debility, languor, palsy, or death ensues. It hath accordingly been remarked, that the causes of death are, in general,

neral, such as act directly or indirectly on the brain. Of the first kind are those which directly attack and destroy the vital principle, as lodged in the nervous system, or destroy the organs immediately connected with it. Of the second kind are those which interrupt such functions as are necessary to the circulation of the blood, and thereby necessary to the due continuance and support of the vital principle.

From what has been said we may infer, that in a perfect state of health there is a *certain balance of strength or vigour* maintained between the several organs of the body, by the peculiar operation of the Brain: whatever, therefore, destroys this balance, may be deemed a remote cause of disease.

As there are, I apprehend, few causes which more immediately affect the brain or nervous system, than the several conditions of the mind, so there are but few which more *directly* interrupt or destroy that equilibrium of action and vigour which
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are necessary to health. I am consequently led to consider those effects which the mind produces on the body when it is occupied by thought, or under the influence of emotion and passion.

C H A P. III.

Of Simple Thought, or Attention.

THAT application of the mind which is unattended by any sensible exertion of it, I consider as constituting the least, or most simple degree of thought. I therefore call such a trivial engagement of the mental faculty, *Simple Thought*, as it serves only to amuse, or keep the mind in a state of tranquillity.

This simple degree of thought, or attention of the mind, is both natural and useful: I shall therefore attempt to point out its beneficial tendency on the healthy, and morbid body.

Since the human machine is continually exposed to the action of powers we cannot avoid, and which are for the most part *stimulant* in their *first* operation, Nature seems chiefly

chiefly concerned in diminishing the *general sensibility* of the body, as the most obvious or only method to prevent too violent effects from them. It accordingly happens in the revolution of a few hours, that a degree of insensibility is regularly induced, constituting a state of sleep; by which the system is relieved from the influence of causes, whose perpetual action would soon destroy it. Even whilst we are awake it may, I think, be observed, that our sensibility is often diminished. However numerous the means may be by which this is effected, I am inclined to believe that Simple Thought is one, not the least considerable: for the *general sensibility* of the body appears to be lessened in proportion to the degree of attention which occupies the mind; that is, by an attention to any thing, except the impressions actually made on the body. This I shall attempt to illustrate by a few familiar examples.

Among the variety of stimulating causes which affect the body, exercise is one of the strongest; and the stronger any general stimulus is, the moving powers are the sooner weakened by it. Hence the ultimate effects
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of exercise would perhaps sooner take place than they generally do, were they not counteracted by some engagement of the mind. I am led, therefore, to imagine that Simple Thought, or Attention, often prevents that degree of *fatigue* which might otherwise happen during even the common exercise of the body.—There are few persons, I believe, who cannot say, that they have been much less tired in walking with a friend or an agreeable companion, than by themselves; and it is not uncommon to notice on such occasions, that we have walked to a certain distance without being sensible of its length; or (in other words) of that weariness which we usually felt when *alone*. This diminution or prevention of fatigue seems to be induced by that attention which necessarily occupies the mind when we are engaged in conversation: for, if when we are *alone* the mind be *equally* engaged, as is sometimes the case whilst we are *mus'ing* (as it is termed) or enjoying our own thoughts, or contemplating the prospect around us, the same effect takes place. It accordingly happens, that without a companion we sometimes walk to that distance which usually tires us, with-

out suffering the least fatigue. This circumstance may be said to arise from an occasional increase of bodily strength. I apprehend, however, that if a man be in health, his strength to-day and to-morrow will be entirely, or very nearly, the same; so that we may be allowed to consider this variation in the effects of exercise as dependent on mental attention, which must ever vary according as the objects which arise are more or less engaging.

The sports of the field, as they employ the mind, have certainly a tendency to obviate, or lessen, in some measure fatigue in their pursuit. Hence a sportsman will feel less tired under an equal exercise of the body, when he beats through a country that affords plenty of game, than over one which furnishes but little. — With me, indeed, it is a question, whether the laborious classes of mankind would be able to execute so much work as they commonly do, were not their minds at the same time engaged by simple Thought. The machine during this employment usually sings or converses, and thereby amu-
sing

sing his mind, he alleviates the burthen of the day. The peasant whistling over his labour, often retires to rest much less fatigued than a person who lounges through the day with a mind less occupied, and a body less employed. It is not uncommon therefore sometimes to remark in an evening, that we feel ourselves much fatigued, and to wonder at it, because we had *done nothing the whole day* ! In this case, the fatigue complained of arises from a too weak, or non-engagement of the mind.

By an attention of the mind, those stimuli which affect the system through the several organs of sense, are prevented in some measure from over-acting or producing effects which might too soon exhaust the energy of the brain, or nervous power. Hence, the too strong impressions of light and sound, and the too frequent sollicitations of hunger and thirst, and of the appetites in general, are in some measure obviated. I am therefore led to believe, that simple thought tends to preserve the healthy exercise of the moving powers : for although it diminish sensibility to a certain extent, it

never so far depraves the nervous system as to render it insensible to those exciting causes which are requisite to the well-being of the animal economy.

This degree of thought or attention of the mind, as it serves merely to amuse, is often of considerable use in the cure and prevention of particular diseases. Those for example which are attended with convulsive or spasmodic affections, may be often removed by it, and their recurrence frequently prevented. Dr. Whytt tells us, that he had often been cured of a slight hiccup by looking steadfastly for two or three minutes on the impression upon a shilling, or any other coin; and that he knew a lady, who, though very liable to hysterical fits, was never affected with them or with flightier complaints, when any of her children happened to be dangerously ill. These are examples which unquestionably prove, that sensibility of body is diminished by an attention of the Mind.

In consequence of a diminution of sensibility by mental engagement, even pain itself

itself is rendered more tolerable. Many an Invalid forgets his pain, (as he expresses himself) whilst he is amused by the company of his friend, or the conversation of those who visit him. From the same cause also, namely, *a full engagement* of the Mind, it is I apprehend, that Philosophy has been found sometimes to mitigate pain or uneasiness of body. Hence those principles of virtue, such as Fortitude, and the love of Glory, which were inculcated by the Philosophers of former ages, being calculated *fully* to engage the Mind, may on some occasions have prevented that acuteness of bodily feeling which might otherwise have prevailed. It accordingly not unfrequently happens, that a Soldier during the heat of battle, is wounded without being sensible of the circumstance, until faintness through loss of blood give him the alarm.*

* Non sentiunt viri *fortes* in acie vulnera; vel sentiunt, sed mori malunt, quam tantillum modò de dignitatis gradu dimoveri. Fulgentes gladios hostium videbant Decii, cùm in aciem eorum irruerant: his levabat omnem vulnerum metum *nobilitas* mortis et *gloria*.—Hæc sunt *solatia*, hæc fomenta summorum dolorum.

Cic. quest. Tuscul.

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The nervous system is sometimes so irritable, that sleep cannot be procured by opium or other medicines usually employed for the purpose of inducing it: in such cases therefore we should have recourse to means adapted to engage, or amuse the Mind.

The uniform succession of sounds, as the hum of bees, the murmur of a rivulet, the whistling of the wind, the gentle fall of a cascade, the bleating of lambs, the cooing of doves, the ringing of bells at a distance, and the graver tones of music, as they invite our attention without producing any considerable emotion, contribute to induce sleep.*

* *Fortunate senex ! hic inter flumina nota,
Et fortes sacros, frigus captabis opacum.
Hinc tibi, quæ semper vicino ablimite sepes,
Hyblæis apibus florem depasta saliat,
Sæpe levi somnum suadebit inire susurro.*

VIRG. Eclog.

*Labuntur altis interim rivis aquæ;
Quæruntur in sylvis aves;
Fontesque lymphis obstreperunt manantibus,
Somnos quod invitet leves.*

HOR. Epod.

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The effect of these therefore point out to us the propriety of employing similar means, when rest is wanted by the sick.

Boerhaave on some occasions, in order to procure sleep for his patient, directed water to be placed in a situation so as continually to drop on a brass pan. Others have used the Æolian harp; and I have been told, that for the same purpose, in some parts of a neighbouring Island, nurses are at this day employed to sing to the sick, or tell them some long story in a monotony of voice. This indeed has ever been more or less the custom of those who have had the care of young children. Another method also hath been successfully made use of to procure sleep, namely, the enumeration of figures or the repetition of some heavy verse. This can no otherwise produce sleep than by engaging the Attention.

A confirmation of what hath been advanced will, perhaps, appear when we reflect, that the very *opposite effects* are produced by the Mind, when it is *wholly attentive* to the
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impressions which are made on the Body. In this case, their force and the distinct perception of each are increased ; hence those impressions which would otherwise only create a trifling uneasiness, will, under such a circumstance, produce it in a considerable degree.

It is upon this principle of Attention to impressions made on the body, that the several organs of sense are improved, as the eye and ear, &c. ; the former in the accurate distinction of objects, and the latter of sounds.

Hippocrates hath observed, that when two painful sensations arise, and each of them in a distinct part of the body, the one which is most violent takes from, or diminishes our perception of the other.

This is certainly effected by the superior force with which the greater pain attracts the notice of the mind. From a similar cause, I apprehend, impressions on the Mind sometimes lessen the effects of those which are made on the body ; for, except an impression

pression made *directly* upon the former be strong enough to engage its attention *more* than one made *immediately* on the latter, no such consequences will follow; we accordingly find, that if a person suffer *violent pain*, his Mind can never or very seldom be engaged so as to render his feeling less; because the impression on the part affected is much stronger than any we can *in general* make, by an *immediate* application to the Mind. In such a case, therefore, the Mind, instead of being diverted from the impression, is on the contrary, irresistibly compelled to attend to it *only*. It has however sometimes happened in persons of *timid* minds, that the tooth-ach, a very common and severe pain, hath been removed by the sight only of the Dentist's instruments. On this occasion the Mind is *awefully* and consequently *very closely* engaged.

The inferences which necessarily arise from what hath been said, are in my apprehension sufficient to direct our conduct both in the management of health and disease. They point out to us the propriety of *amusing* the Mind when we are in possession of

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the highest health, or under the influence of particular diseases, or in that convalescent state which renders every impression on the body, doubly important.

CHAP.

C H A P. IV.

Of Intention or Study.

HAVING in the former chapter treated of a passive kind or condition of Mind, I proceed under the present title to speak of that which is of a more active nature, and which hath consequently a more considerable influence on the animal œconomy. For the truth, however, of my observations on the present subject, I must chiefly appeal to those who are acquainted with the tasks of literature and science. I shall, therefore, under distinct heads, endeavour to point out the several changes which a laborious employment of the Mind may produce in the body.

1st. The first, and I apprehend the most apparent change, is, in its Sensibility.

Those who have been engaged in literary pursuits will, I believe, easily recollect inci-

dents which have arisen during Study, sufficiently to convince them, that their Sensibility must have been at that time considerably diminished: for example, it not unfrequently happens, that a studious man continues in his room many hours in pursuing a train of thought, without knowing that his fire has gone out, or feeling the least inconvenience from such a circumstance. At another time, his Mind not being so *fully* engaged in a similar situation, he is very sensibly affected by the chilling power of cold. The senses, indeed, are sometimes so impaired by a close and elaborate attention, that even considerable noises pass unnoticed, and those objects which we *seem* particularly to observe, make no impression on us. This the eye *sometimes* during study is directed to, and fixed on objects, which, to speak in common language, we *do not* see, or to the impressions of which we are *totally* insensible. This wholly depends on the intensity of our application; for as soon as that is diminished, we become more sensible, and when the Mind withdraws from those objects which so fully engaged

gaged it, our perception of every impression is as distinct and perfect as usual.

To what has been said, it may be objected that even during Study our senses are affected by very trivial causes, a small noise a cooler air, or a stronger light than usual being sufficient to discompose us. This appears however to happen only, when the Mind is *imperfectly* engaged, which is generally, if not always the case, at our first setting down for the purpose of Study. Our ideas at this time are in general too fugitive, or at least not sufficiently associated to acquire that power which is necessary to force the Mind to a steadfast application. Such an objection, therefore, does not, I conceive, invalidate the proposition advanced.

By long and frequent Study the sensibility of those organs which serve to the natural functions, becomes so impaired, that stimuli adapted to their proper or original state of feeling, fail to produce the necessary and usual effects. Hence the stomach during Study losing some portion of its sensibility, is not so readily affected by the liquor
it

it secretes, so that our appetite does not *then* so often arise. Persons in such a situation are accordingly known to fast many hours, without feeling the sollicitations of hunger; at the same time also, a like failure of sensibility prevails through the intestines, so that a costive habit is induced.

The effects enumerated, therefore, of close mental application, conjoined with a sedentary life, give rise to obstructions in the abdominal viscera, and form the basis of those disorders to which men of letters are particularly liable.

2dly. When the Mind is employed on any work of Study, the *general sensibility* of the body is not only considerably diminished, but the brain is so actuated, that the motion of the blood is quickened, and more than usually determined to that organ.

The more increased motion of the blood may have no injurious tendency in a healthy person, or in one who is not predisposed to particular diseases. To those however who are, or who actually labour under any dis-

order in which the circulation is already too quick, especially if it be attended with occasional delirium, the least degree of thought beyond what constitutes *simple attention*, may prove injurious. A prudential caution, therefore, is often necessary to be observed, in transacting any business with the sick, which requires the exercise of much thought. But although the mere circumstance of an accelerated circulation may not be of any great importance ; yet, as intense thinking determines at the same time a considerable afflux of blood to the head, a *long occupation* of the Mind in Study should be avoided by persons who from their constitution, or time of life, are disposed to apoplexy, or other affections of the brain. In this place I may, I think, venture to relate one instance of *temporary Apoplexy*, which seems to have been occasioned by a close application of the Mind. An old gentleman of my acquaintance, the late Archdeacon of Bath, whilst intently engaged in the perusal of a new publication, fell suddenly from his chair. His spectacles were broken by the fall, and cut his face so as to produce a considerable flow of blood. By this accident it

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is probable that a *fatal Apoplexy* was prevented, the furcharged vessels of the head being immediately relieved by the bleeding.

I have known more than one instance of persons liable to epilepsy, who were generally seized with a fit if they read too long at a time, especially if the subject were in the least abstruse. One unhappy man of this description I much pitied, as his chief amusement arose from the newspapers ; he was very fond of politics, but could seldom read through a long Parliamentary debate without being affected by an epileptic paroxysm, or obliged suddenly to throw aside the paper he was reading, by some symptoms of its approach.

To the unmedical reader, I do not know how to illustrate my assertion, that a close application of the Mind determines the blood to flow more particularly to the head, otherwise, than by directing him to observe the countenances of those who play at cards for high stakes, or for such as are of sufficient importance to merit a full attention to the game they are upon. In one who has been
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some time engaged in play, a greater glow of the face and fullness of the blood vessels of the eyes may be perceived, than before he sat down for that purpose. Hence on such occasions a complexion naturally pale will sometimes assume a ruddy appearance. The effects of such attention are very conspicuous in persons of a full and sanguine habit; and these will be often sensible of this determination to the head, by the increased heat they feel in the face when the short intervals of play permit the Mind to attend in some measure to the state of the Body.

3dly. By a long and frequent employment of the Mind in Study, the general vigour of the Body is impaired.

The alteration or change in the state of the brain induced by Study, cannot be ascertained, nor satisfactorily explained upon any principle of theory; it may be therefore allowable to conjecture, that it is such a change as retards, or prevents, that full transmission of the vital principle to the several organs of the body which we deem

necessary to the strength of the whole, and which I have already mentioned as dependent on a proper action of the brain.

A more than ordinary *accumulation* or *retention* of the vital principle in that organ is, perhaps, required under the arduous exercise of Thought ; or this principle may be very considerably expended during that period, by the peculiar exertions of the brain. Be this as it may, it is certain that long and frequent study weakens the general system independently of other concurring causes. Hence studious persons are often afflicted with tremors, which are most conspicuous when they attempt to write, or do any thing that requires a steadiness of hand ; and as the action of the heart and arteries is less vigorously performed, they become also liable to various obstructions, and to a diminution of that natural heat and perspiration, which are essentially requisite to the support of health.

From these causes, the fluids accumulate, and from some interruption or weakness in the lymphatic system, their more watery
parts

parts are left in the cavities of the body, so as to occasion dropfy, and finally death.

4thly. Lastly. By long and frequent intention, the brain itself becomes impaired; hence the dimness of sight, dullness of hearing, loss of memory, fatuity, and palsy, are afflictions which have befallen many an indefatigable genius in this and in other countries.

Convalescents, therefore, and persons of weakly habits, should particularly avoid much Study, and if they study at all, should often change their subject, as a mode of diminishing in some degree the fatigue which might otherwise ensue.*

Excessus tamen cum varietate studiorum tolerabilior est: et vehemens cogitationum in eandem rem intentio, non interrupta, rari sunt, quibus non magnopere noceat. Etenim pars illa sensorii communis, quæ sola tum in actione est, et in quam tota veluti mens omni sua vi incumbit, violentiam patitur haud minorem, quam muscoli singulares fortiter diuque contracti.

GAUB. Inst. Patt.

But although long and frequent Study independently of other causes, very considerably tend to impair the vigour of the body, and induce those diseases to which literary men are particularly liable; yet the sedentary life it imposes must be considered, as in no small degree contributory. Nothing, therefore, can tend to preserve the health of studious persons so much, as an habitual or regular exercise of the body during the several intervals of Study; since it opposes the injurious tendency of their sedentary hours, and by deranging the order of thought, prevents a too quick renewal of the studious state.

C H A P. V.

Of Hope.

HOPE is an emotion of the Mind, designed, as it would seem, for the support of Man under the gloomy vicissitudes of human destiny. It enables us not only fully to enjoy the good we are in possession of, but to sustain more easily the common evils of life by representing to us the animating prospect of better days.

—Hope prolongs our happier hour
Or deepest shades, that dimly lower
And blacken round our weary way,
Gilds with a gleam of distant day.

GRAY.

The animal œconomy, therefore, derives no inconsiderable benefit from the exhilarating influence of this emotion, as will appear

more clearly when its effects are contrasted with those which are produced by an opposite state of Mind.

By the influence of Hope on the nervous system, the action of the heart, so far as it depends on the energy of the brain, is in some measure assisted. Hence it contributes to invigorate the circulation, thereby maintaining that tension of the blood vessels which is necessary to support the general strength of the body: as it has this tendency, it may be justly deemed a preservative power, a prophylactic, which opposes in no small degree the attack of particular diseases. It has accordingly been remarked, that when the Minds of persons have been fortified by Hope, they either escape contagion from a prevailing epidemic, or are infected by it in a milder manner than those who give way to unfavourable apprehensions.

The utility of Hope, in the prevention and cure even of the plague, is attested by the writings of those who had sufficient opportunities of observing it. We should, says a late celebrated Professor, fortify as well as

possible the *Minds* of those who are exposed to the contagion of plague, by giving them a favourable idea of the power of preservative means, by destroying the opinion of the incurable nature of the disease, and by preventing all those objects which tend to deject the spirits, such as funerals, passing bells, and the knowledge of the death of friends.

The ingenious and humane Howard is, perhaps, not far from the truth in supposing that the jail-fever depends in a great measure on the state or condition of the *Minds* of those who are exposed to it. If it were asked, says he, what is the cause of the jail-fever? it would in general be readily replied, *the want of fresh air and cleanliness*. But as I have found in a few prisons abroad, cells and dungeons as offensive and dirty as any I have observed in this country, where, however, this distemper was unknown, I am obliged to look out for some additional cause of its production. I am of opinion that the sudden change of diet and lodging so affects the *spirits* of new convicts, that the general causes of putrid fevers exert an
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immediate effect upon them. Hence it is common to see them sicken and die in a short time, with very little apparent illness.

To the above opinion, it may perhaps be opposed, that the change of diet and lodging would *alone* be sufficient, by weakening the system, to dispose it to receive infection. It is however certain, that as depression of Mind tends very considerably to diminish vigour of body, the latter is in consequence disposed the more readily to be affected by putrid effluvia. I am inclined, therefore, to believe, that were an accurate observation made, those criminals who are of the most obdurate dispositions of Mind would be found the least susceptible of contagion.

But the salutary influence of Hope will, perhaps, be more obvious, when we consider its effects on the *morbid* body. In those disorders which are attended with debility and languor, every humane and attentive physician must have noticed the exhilarating power of this emotion. Hope, says the
late

late Dr. Fothergill, is of vast moment in the cure of many diseases; and it is not perhaps inconsistent with the duty we owe to our patients to promote it, whilst we ourselves retain a hope of their recovery.

Here it may not be amiss to oppose that censure which is occasionally cast on the physician who endeavours to cherish Hope in his patient to the last. Such conduct has been deemed improper in a religious view, but how far it is reasonable to expect that the repentance of a past life will avail at so late a period, it is not for me to give an opinion. I am, however, convinced that by depriving the Mind of Hope, we may *hasten* the exit of the sick, and render their last moments truly miserable: for the awe of dying is sufficiently distressing to the Mind, and depressive to the body, whether men are well, or ill, prepared for the event. A more rational plea for informing a patient of his danger might be given by those of his family or connections, whose protection and welfare, after his decease, depend on the condition in which he leaves

Truly, but
We may not limit
God's grace - one
moment's believing
trust is enough -
+ the value of
soul is far higher
than that of an
hour or two longer
life

his temporal concerns. If, therefore, it should be intimated to a physician, that the affairs of his patient are unsettled, and he should be solicited to acquaint him of the dangerous tendency of his disorder, he ought, perhaps, to acquiesce; but even in this case he should avoid it, until he had tried every other method to induce him to adjust what he had omitted: for it sometimes happens, that the most experienced and sagacious physician is mistaken in his prognostic, and persons recover from the brink of the grave, who, probably, would not have escaped, had they been informed of their real danger. To proceed:

Sanctorius observes, that nothing occasions a more liberal perspiration than consolation of mind; and, among other emotions, Boerhaave mentions Hope, as acting a curative part in the languid stages of fever.* If, indeed, the proximate cause of a continued fever be in part owing to a constrict-

* *Lætitia moderata, Spes futuræ sanationis, desiderium præcipua hic sunt et tutissima; cum motum humorum leniter augeant.*

Van Swiet. Comment. in Boer.
tion

tion of the extreme vessels of the body, (as is the modern doctrine) the consolatory power of Hope may be useful, by contributing to restore that energy of the Brain which is necessary to overcome it.

It is well known that, in the rude times of medical science, the cure of disorders was often attempted by amulets, incantations or charms, to which custom Horace, in one of his Epistles, seems to allude, on subjects of mental disquietude :

*Sunt verba et voces, quibus hunc lenire dolorem
Possis, et magnam morbi deponere partem.*

I can indeed readily imagine, that as the minds of the sick were impressed with a firm hope or confidence in such remedies, a salutary change in the animal economy was sometimes effected. If, therefore, in the present enlightened age we find persons who believe in the efficacy of charms, or modes of cure, equally ridiculous, it will, I think, be proper to make use of such remedies ; being of opinion that any attempt to remove the credulity of persons so infatuated,

tuated, would be as unphilosophical, as to recommend the observance of similar means to those who have no faith in them : at the same time, however, it will be highly necessary to administer such medicines as are most likely to effect a cure, taking care that the patient consider them merely as *auxiliaries*, otherwise *real remedies* may be wholly rejected : for when the human Mind is infatuated by any particular opinion, it will never adopt maxims which supersede, however it may be disposed to acquiesce in such as tend to confirm it.

Hope ought, perhaps, to be more especially encouraged in persons who labour under chronic diseases, as it will induce them strenuously to pursue the necessary means of cure, which, to be effectual, require to be long continued. Although in such cases we may have only a very weak expectation of being able to restore health, we should endeavour by every method to prolong life, even if it be attended with much suffering : for as the human body progressively undergoes some change, the disorders it labours under at one period, often cease at another.

Hence

Hence those which accompany childhood may retire at puberty, and such as occur in youth cease at middle age, and those of middle age give way in more advanced life.

Notwithstanding many diseases of the body considerably depress the Mind, there are but few in which a man totally throws aside his Hope. Some instances, indeed, occur where this benign emotion seems to increase with the exigencies of nature. In the extreme stage of consumption, for example, as well as through the whole progress of that disorder, the sick are apt to entertain the most favourable opinion of their complaints; they are consequently cheerful, and often please themselves by conversing on the different amusements they expect soon to partake of, or on the return of seasons which they think will restore them to perfect health. If disappointed, they very readily suggest reasons for it, and immediately discover other pleasing views equally delusive. I particularly remember a consumptive patient who, with-

in a few hours of his death, detained me a considerable time, in describing a certain spot of land, the nature of its culture, &c. &c. and in anticipating the enjoyment of a ride to it the next day. He was then perfectly collected, and in spirits, but before the succeeding noon he died.

If it be true, as from observation I have no doubt in believing, that consolation of Mind, or the Hope of relief, contributes to the cure of diseases, and the prolongation of life, we may, I apprehend, conclude, that sick persons reap no inconsiderable benefit when they meet a friend in their physician; as this union tends, in the highest degree, to excite that Hope and confidence which are, perhaps, in no small degree requisite to the successful administration of medicine. Hence Pechlin, “*Quotidianum est, nisi concepto ante gaudio et fiducia de medico ægrotantis animus erigatur, lentas esse remediorum vires.*”

Hope,

Hope, when considered as a remedy, appears, in one respect at least, to have the advantage of every other emotion; it acts without violence, and may of course, be safely encouraged in every species of disease.

C H A P. VI.

Of Joy.

THIS emotion, if it be occasioned by any sudden or unexpected cause, may not only produce very considerable, but even fatal changes in the animal economy. When such happen, the vital principle is either at *once expelled*, as it were, by an over excitement of the brain, in consequence of some great injury done to the blood-vessel system, the welfare of which is absolutely necessary to support the tone of the brain, and consequently the continuance of life in the human body.*

* Organa quæ sanguinem movent tantum cum cerebro commercium habent, et sanguinis motus, ad excitandum, suisque muneribus aptandum cerebrum adeo necessarius est, ut hæ binæ functiones subsidium ferant et petant vicissim neque altera sine alterius ope perfici queat.

Grægor. Conspect. Med. th.

That

That the former circumstance sometimes occurs, it is very probable, since in persons cut off by the violent operation of this emotion, no marks of organic injury have been discovered on dissection: but that the latter should often happen, it is more likely, from the phænomena which take place in the paroxysm of excessive Joy. In this, the action of the brain on the muscular fibres of the heart is so increased, that the contraction of the latter is performed with more than usual force: hence the blood is not only propelled with increased violence, but the return of it from the auricle is at the same time retarded by the spastic state of the ventricle. The countenance accordingly appears red and turgid, a sense of stricture is felt around the præcordia, and respiration is short and hurried. This contraction of the ventricle being followed by a proportional relaxation, the tension of the vessels of the head is removed, so that paleness and syncope often succeed.

On the sudden attack of Joy, therefore, should the texture of the heart or its contiguous vessels, or those of the brain, be de-

licate, a rupture in either may happen. But the extinction of life is not so dreadful an effect of sudden or violent Joy, as that perversion of intellect which constitutes insanity, and that state of annihilation termed fatuity, which sometimes succeed its operation. When these happen, some important change takes place in the brain, of what nature we know not.

On the other hand, when this emotion springs from anticipation, that is, when it arises from circumstances which first produce Hope, or an expectation of future good, it is not only exempt from every injurious tendency, but productive of the most useful and salutary purposes in the animal economy. In such a case, the system is as it were prepared by a *gradual excitement* of the brain, to sustain the increased action which, on this occasion, takes place in the several moving organs of the body.

Whenever, therefore, Joy is excited by the gradual operation of its cause, the circulation is invigorated so as to produce the fullest tension of the vascular system, on
which

which the general strength of the body in a great measure depends. Hence, under such a state of Mind, the various excretions will be completely performed, the appetite and digestive faculty preserved in full vigor, * and visceral obstructions prevented.

Those, accordingly, who pass cheerfully through life, have, in general, the most healthy appearance : for by the invigorated action of the heart, the extreme vessels being completely filled, the countenance receives that glow and animation, which are so characteristic of good health. A joyous state of Mind, therefore, by thus contributing to support the general vigor of the body, may tend not only to preserve it from the attack of particular diseases, but also to prolong life.

A late writer, in his comparative view of the state and faculties of man, &c. observes, that the gentlemen of France, in all periods of life, even in the most advanced

* Videmus eos qui animo læto et hilari sunt, cibum facilius et celerius concoquere.

Sennertus de viribus imag.

age, never affociate with one another, but spend all the hours they can spare from business, or study, with the ladies, with the young, the gay, and the happy; and that they live longer, and what is of much greater consequence, live more happily, and enjoy their faculties of body and mind more entire in old age, than any people in Europe.

As excessive or sudden Joy is sometimes injurious even to those who are in health, the utmost circumspection should be observed in communicating to the *sick*, any intelligence which may excite this emotion. The pleasing scene must be gradually unveiled, and every fascinating circumstance cautiously made known: for it seems to be an established law of nature, that every change in the human body compatible with safety, should *in general* be effected by a *gradual* though powerful operation.

When this caution is observed, Joy may be of no inconsiderable use in the cure of many diseases. In all chronic cases, for example, especially in those which arise from

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obstructions in the extreme vessels, or in those parts whose organization is delicate as the glands; and in fevers also, when the action of the heart is too languid, it may be of advantage to employ those means which produce cheerfulness of thought.* Even in the gout, especially in the atonic species of that disease, where the system is too languid to excite an inflammation on any of the extremities; circumstances which exhilarate the Mind, have been found serviceable. In fits of regular gout, indeed, cheerfulness of thought is of no small use, in enabling nature either to throw it off, or support it, with less injury to the constitution. In arthridite, says Pechlez, *semper lætior animus et patientia instructus plurimum prodesse et in partem sanationis venire solet, et reperti sunt, qui ubi alia non profuerant, remisso animo aut lætitiâ perfuso valetudinem recipere.* In diseases of the spasmodic kind, or such as occur perio-

* *Spes, Lætitia, perspirationem promovent, pulsum adcelerant, sanguinis itinera liberant, adpetitum intendunt, morbos sanabiles reddunt.*

Haller. de sens. intern.

dically,

dically, this emotion also has been found useful.

Under the restrictions, therefore, above-mentioned, Joy may be employed as a remedy on all occasions, except when a disease be attended by very violent inflammation, an affection of the brain, or particular hæmorrhagies, as bleeding at the lungs, &c. &c. in which latter cases a very trivial impression on the Mind hath been sometimes productive of alarming consequences.

C H A P. VII.

Of Anger.

OF all the exciting passions, this appears to affect the body most considerably. The several circumstances which attend an excitement of the brain by the operation of *excessive Joy*, are greatly increased during the paroxysm of Anger. Those changes in the system, therefore, which we have already observed, as likely to take place under the operation of the former, will with more certainty supervene the action of the latter. The countenance is not only more turgid, but the suffusion much deeper, approaching to purple, the eyes at the same time appear ready to start from their orbits, and the respiration extremely hurried. The circulation is so much increased by it, that from several organs of the body, very profuse hæmorrhagies have been occasioned, such as bleedings from the nose, ears, lungs, anus, and uterus. These effects of Anger

are,

are, indeed, generally induced on persons who are constitutionally disposed to such disorders, but more especially on those who have been once afflicted with them. By the violent operation of this passion, however, more important effects may be produced, such as palsy, apoplexy, and sudden death. These may happen in persons of every age, but more particularly in those who are of a full and sanguine habit, or who are advanced in life.

The passion of Anger has so great an influence over the organs of respiration, that it seldom fails to induce an asthmatic paroxysm on those who are predisposed to, or have already suffered from, affections in breathing. Its power also over the biliary secretion is so considerable, that its operation is often succeeded by very profuse evacuations of bile. This latter effect is indeed so common, in some constitutions, that a superabundance, or an ill condition of the bile, hath been considered as the cause or promoter of the passion we now treat of. Hence the terms *passionate* and *choleric* are synonymous, as implying irascibility.

Put him to *choler* straight : he hath been used
 Ever to conquer, and to have his worth
 Of contradiction : being once chaf'd, he cannot
 Be rein'd again to temperance ;———

SHAKESPEAR.

Anger is not only capable of increasing the secretions of particular organs, but of producing also *some change* in the fluids secreted. In the milk, for example, such a change may be occasioned, as to render it pernicious to infants, or at least sufficiently to destroy its nutritive quality. On this account, therefore, it may not be improper to observe, that persons who employ nurses for their children, ought not merely to make choice of those who possess an healthy and vigorous state of body, but such whose minds at the same time are least liable to be disturbed by the influence of passion. For although we do not suppose, as some have, that an infant can imbibe the *virtues* or *disposition* of the person who suckles it, yet we doubt not the nutritious property of the milk may be destroyed by the operation of Anger, or any violent or excessive emotion. Hence the child will be deprived of proper nutriment, and become in consequence

weak and sickly. Whilst, then, this reflection conveys a proper lesson to mothers, whose delicate constitutions oblige them to commit the office of suckling to hirelings, it affords an useful hint to *all who give suck*, of the necessity and duty they are under to preserve a well regulated *temper*, as well as conduct.

From what has been said of the effects produced on the sanguiferous system in general, and on peculiar organs of the body by the force of Anger, it appears highly proper that females particularly, and more especially those who are breeding, resist every circumstance which tends to excite it; since not only uterine hæmorrhages, but fatal miscarriages, may succeed its operation.

Having already mentioned, that profuse evacuations of bile are sometimes occasioned by this passion, it may be unnecessary to observe, that persons who have been afflicted with cholera morbus, should carefully avoid every incentive to Anger. It will, however, be proper to recommend this caution

caution to those who have been afflicted with jaundice, especially if it have arisen from gall-stones. These concretions, it is well known, may remain in the gall bladder many years, or during the whole life of a person, without occasioning jaundice; should any cause, however, change their position so as to obstruct the common channel of the bile into the intestines, this disease will be produced. The causes which are most likely to occasion such an effect, are those which promote exertions of body; hence Anger, as it considerably agitates the whole frame, hath sometimes induced jaundice.

Notwithstanding the pernicious tendency of this passion in general, its operation having been thought useful in a few instances, it hath been recommended as a remedy: in cases where the power of voluntary motion has been for some time suspended, or greatly diminished, it hath occasioned at least a temporary renovation. We have it recorded, for example, of one afflicted with palsy three years, who became so incensed on hearing the enemy was at hand, that he immediately leaped from his bed, and joined

his fellow citizens. I myself knew a paralytic of a very irascible temper, who, notwithstanding he was obliged to support himself by a crutch, and his speech was much impaired by the disease, would, when roused by Anger, spring from his chair without assistance, and exert his limbs and voice for the time, as well to appearance as a person in health. I might here, perhaps, with equal propriety, mention another instance of the force of Anger which has come to my knowledge, in the case of a person who is now living—A gentleman, who has a very great hesitation in his speech, whenever any circumstance excites his Anger or resentment, he articulates rapidly and perfectly.

By the operation of this passion, fits of the gout are said to have been sometimes removed; they have, however, I apprehend, been oftener brought on, and rendered more severe by it.

Intermittent fevers also, or agues as they are commonly called, of a very obstinate nature, are said to have been removed by the
power

power of Anger. If, indeed, just before the accession of the febrile paroxysm, we could excite an high degree of this passion, it might perhaps shorten the duration of the cold stage, and by inducing the hot and sweating stages, occasion a solution of the disease.

The ancients seem to have considered Anger as a remedy on the same principle they supposed a fever to be salutary ; viz. by causing a concoction or resolution of viscid humours, or by dispersing on the surface of the body those noxious matters which it had imbibed : hence it hath been imagined, that the employment of Anger would be *useful*, by enabling nature to expel the matter of small-pox, measles, erysipelas, and other eruptive diseases, from the internal and vital organs of the body. Experience, however, has taught us, that in those disorders, as they occur in this country, such treatment would be highly injurious—placidity and calmness of Mind being almost the first requisite to their happy termination.

Since

Since all the examples hitherto recorded of the efficacy of Anger as a remedy, do not counterbalance the injurious tendency of it, we are, I think, by no means authorized to employ it: besides, it is extremely uncertain, that the salutary effects enumerated would be produced by its operation; and if they were,—their permanence would in general be but short. In most cases, the diseases so suddenly removed, return after the passion hath subsided, attended oftentimes by a greater debility than before. This was always the consequence of Anger in the paralytic I have mentioned.

Hippocrates, who has been quoted by modern writers as an authority for employing this passion in the removal of diseases, gives us, I think, a sufficient *caution*, when he says, that it is a remedy for persons of *cold constitutions*. In those, indeed, I apprehend its operation would be perfectly safe; but as their nervous system is not disposed to be much affected by passions of any kind, I fear we should lose this remedy, from our inability to excite it in a sufficient degree.

I must therefore conclude, that the employment of Anger in the cure of diseases will be either hazardous, or useless.

C H A P. VIII.

Of Fear.

THIS passion of the Mind is for the most part injurious to the animal œconomy, and the force of its impressions differ, according to the mode by which it is excited.

When the causes of Fear *gradually* arise, the Mind having time to reflect, their operation is weakened, and timidity only is produced: but when those causes are *suddenly* presented, and especially, if they have a reference to *immediate personal safety*, the Mind is usually actuated by terror. I shall, therefore, treat of the present subject under two heads—Timidity and Terror, confining my observations chiefly to the latter, as this degree of Fear hath occasionally been employed in the cure of particular diseases.

1st. Timidity. Although the human Mind, as hath already been observed, be disposed to cherish hope, yet Fearfulness also is a propensity of nature, which sometimes interposes, so as either to take from our present enjoyments, or prevent our future, by repressing those exertions which are necessary to attainment. In some persons this propensity is unhappily so prevalent, that occurrences apparently of little or no importance are sufficient to derange the healthy operations of the body; hence they become disordered by causes which make no impression on others, and are more considerably affected by those, to which all are liable. In consequence, therefore, of this disposition of Mind, not only morbid causes with more certainty take effect, but diseases themselves are rendered dangerous. The truth of this latter position, experience has more than once confirmed in patients who, on the attack of fever, entertained the most fearful apprehensions of danger. In such, when that Timidity could neither be removed, nor diminished, the disease hath terminated fatally, although in the first stages of

it no symptoms appeared, which could alarm.

I consider it, therefore, a very unfavourable circumstance, when a patient labouring under fever, or any other acute disease, entertains a strong apprehension of death: on these occasions, not only the usual remedies must be employed, but the strongest assurances of safety.

It would be superfluous to extract from the works of medical writers, those testimonies which might confirm what I have advanced, since every practitioner of experience and observation must, I apprehend, be convinced of its truth. I cannot, however, refrain from mentioning a case, which, in the early part of my studies, very forcibly struck me, as an instance of mental influence on the body. A man about forty years of age, of an athletic make, and enjoying good general health, was taken into Guy's Hospital for a swelling in the middle of his left leg, near the tibia, which had come gradually on, and at length prevented his following business. He could not ac-
count

count for his complaint, but supposed that it must have arisen from some exertion in his occupation, which, I think, was that of a porter or coal-heaver. On examination, the swelling was judged to proceed from an aneurism, and after some little time the operation for that disease was performed: the bone, however, being found carious, and ligatures on the vessels useless, it was proposed to amputate immediately above the knee, to which the man readily consented—observing at the same time, that he feared he should die, whether the limb were removed, or not. During the operation there was no uncommon effusion of blood; he was put to bed, slept well; his pulse on the next day was good, the heat of his body not much increased, and every favourable symptom appeared. He was of course told, that he would do well; to this he shook his head; expressed much thankfulness for the care that had been taken of him, and concluded by saying, that he was certain he should die. Every favourable circumstance of body appeared to continue for several days; he readily took the medicines prescribed, and plentifully of nourishment; the discharge from the thigh was moderate:

but the same apprehension of death continued, and he gradually sunk away.

The passion of Fear, taken in the general sense, as comprehending both timidity and terror, seems to injure health by primarily weakening the energy of the brain; hence a debility of the body is induced, which gives a predisposition to many diseases, and to none more readily than to those of an epidemic * and contagious nature. It hath accordingly been remarked by ancient and modern writers, who were witnesses to the ravages of plague, that persons awed by fear or dread of the disease, were the first who received the contagion, and fell victims to it. This effect was indeed so obvious, that the occurrence of Fear hath been considered as one of the most unpropitious omens in persons exposed to, or affected by the contagion. Such a tendency of Fear, therefore, could not escape the notice of a philosopher and a poet, who in describing the plague at Athens, speaks of it very pathetically, in the following lines :

* In morbis epidemicis eos cum primis officii videmus quos *metus* malè habebat. Pechlin. observat.
Illud

Illud in his rebus miserandum, et magnopere unum
 Ærumnabile erat, quod ubi se quisque videbat
 Implicitum morbo, morti damnatus ut esset,
 Deficiens animo, mæsto cum corde jacebat
 Funera respectans, animam et mittebat ibidem.

Lucretius.

When epidemic or contagious disorders prevail in this country, it is generally found, that those whose minds are depressed by the Fear of them, seldom escape their attack. The disease of the small pox may be cited as an instance ; persons arrived at the age of puberty, who have escaped it, are apt to entertain the most depressive apprehensions of infection. Hence it has happened, that such accidentally entering an house where one lay ill of small pox, have immediately sickened, on being informed of the circumstance ; although they had oftentimes, without knowing it, been exposed to the same contagion. When this occurs, the disease is generally of the confluent kind, and usually terminates fatally.

2dly. Terror. As this term implies only an extreme or superlative degree of Fear, we naturally infer, that as Timidity weakens,

or diminishes the action of the brain ; Terror must necessarily produce a similar, though greater effect. This, however, it would *seem*, is not always the case ; for notwithstanding the more usual and final effects of Terror are debility and languor, yet it sometimes happens that the opposite take place, when the Mind *appears* to be under its influence. I am lead, therefore, to consider the more common operations of Terror, before I speak of those which are but rare, and which, perhaps, happen only in peculiar constitutions.

On the first impulse of Terror, the heart seems to undergo a momentary suspension of its action, to which succeeds palpitation, and an irregular and hurried respiration. These effects are accompanied by a trembling and coldness of the body, paleness of the face, hesitation, or a total loss of the power of speech, and oftentimes by an effusion of sweat.

— Ubi vehementi magis est percussa metu mens,
Consentire animam totam per membra videmus ;
Sudores itaque, et pallorem existere toto

Corpore, et infringi linguam, vocemque aboriri,
Caligare oculos, sonere aures, succidere artus.

Lucretius.

I was once present during a very powerful operation of Terror. A gentleman, having dismissed a servant of an implacable disposition, was alarmed in the middle of the night by an attempt on his house. His wife, who had been always apprehensive of the villainous principles of this servant, was so terrified, that she started from bed, and, without speaking, laid hold of the curtain for support, being seized with a shivering the most violent I had ever seen. Her appearance was lifeless, her face and extremities cold and pale, and scarcely any pulse could be felt. These circumstances continued for some time, after she had been placed in bed, and the same effects ensued as usually occur in the paroxysm of an intermittent fever. A very considerable degree of heat succeeded the cold fit, and lasted for some hours, attended by restlessness, until a sweat arose; soon after which she slept, and awoke in a state of calmness; but under a debility,
of

of which she did not recover for many days.

The natural functions are sometimes so influenced by the power of Terror, that vomitings, diarrhœa, and a profuse discharge of urine, have been occasioned by it. These effects happen, not unfrequently, in armies and navies to recruits, or men inexperienced in the service, when the prospect of immediate action presents.

Similar operations are produced by Terror, even on the brute creation, and are noticed particularly in dogs, when they see the impending whip.

A circumstance has lately occurred, which, perhaps, not only shews the strong influence of Fear on the urinary organs, but also on the absorbent system. A person about fifty-five years of age, who had been ill nearly two years, requested my opinion on the nature of her disorder. I found it to be an ascites, or dropsy of the belly, and as the general state of the body appeared healthy, I gave my opinion, and at the same time

time my sollicitations for her consent to the operation of tapping; after which she might expect advantage from medicines. This patient, who entertained very dreadful apprehensions of the operation, consented to my proposal, with a resolution not often met with. On the next day Mr. Atwood, an eminent surgeon at Bath, went with me to know if she continued in the same resolution, and to appoint a day for the same. She was very glad to see us, being in high spirits, as she had made, soon after I left her the day before, and during the night, no inconsiderable quantity of pale urine; from which circumstance she supposed that her disorder would be removed without our assistance. The distance of two or three days, however, was appointed for the operation, as I considered the discharge of urine produced, *merely* by the influence of Fear. Upon any other supposition, I think, it cannot be accounted for, since in the course of twenty-four hours not more than a large tea-cupful of water had seldom been evacuated for many weeks, and no medicine whatever had been taken several days previous to my visit. The result of this case can

be of no consequence to the subject we are upon, and I have introduced the circumstance only to shew the power of Fear. It may not, however, be amiss to say, that two gallons and five pints of water were drawn off by tapping, and that the patient, at this time, viz. three months from the operation, enjoys better health than for some years before. This, indeed, I think necessary to mention, as an encouragement to those who may labour under the same malady.

Having thus much advanced on the general proposition, that debility is induced by Terror, I proceed to consider the opposite effects which are said to be occasioned by it.

It hath sometimes happened that persons whose lives or property were in imminent danger, have shewn most surprising exertions, as in alarms of fire, by bursting doors, or carrying heavy pieces of furniture, which their common strength could never accomplish. Such instances have, therefore,

fore, been adduced, as examples of the invigorating power of Terror.

Those exertions, however, I cannot suppose to arise from the *immediate* effect of Terror ; I shall consequently attempt to explain, why debility in some, and strength in others, are *apparently* occasioned by it.

There is certainly a diversity in the mental, as well as in the corporeal constitution ; for the impresson of an idea made with equal, or even *less* force on the Mind of one person, than on that of another, may be retained longer by the former, than by the latter, and thereby retard, or prevent the occurrence of a new one. Hence the idea of danger, which excites Terror, so forcibly seizes the minds of many, as to prevent the intrusion of an idea of safety ; so that the *desire of escaping* is either totally suppressed, or considerably weakened : such persons, therefore, necessarily sink under the operation of Fear.

On the contrary, an idea of danger,
though sufficient to produce the utmost
alarm,

alarm, may, in some minds, subsist only for a moment, giving way to the hope of safety, whereby *the strongest desire to escape* will be excited, and consequently those corporeal exertions occasioned, which *seem* to arise from the immediate influence of Terror. I am lead, therefore, to imagine that the increase of strength observed sometimes to supervene its operation, is produced in most cases by a *strong desire* to escape the evil which impends. It is in this way, I apprehend, diseases of debility are removed *apparently* by Terror : for the passion of desire, whatever may be its object, is most certainly a very powerful stimulant and tonic.

The real operation of Fear, therefore, taken in the general sense already mentioned, I consider as sedative and depressing ; from which alone we may account for the intrusion of those disorders that are known to succeed it.

Notwithstanding the many examples of the injurious tendency of Fear, it has more than any other affection been recommended

as a remedy in particular diseases. Before the use of bark it was employed in the cure of intermittent fevers, by means of those devices which are most likely to excite it; as by hanging toads round the neck, or exposing the patient to other objects of dread, which, though perhaps harmless in themselves, were deemed highly pernicious. The cure of epilepsy also has been attempted by the excitement of Fear, and hath been particularly noticed as a remedy in preventing the return of epileptic paroxysms; a memorable example of its effect having occurred in the Orphan-house at Harlem, under the eye of the celebrated Boerhaave. As the circumstance alluded to, is, perhaps, unknown to some who may peruse this Essay, the medical reader will overlook the insertion of it.

A child in the Orphan-house at Harlem was, from some unknown cause, seized with epilepsy, and on the frequent repetition of its paroxysm, other children sympathised, so that at length almost the whole ward were rendered epileptic. The attendant physicians being disappointed in all
their

their attempts to stop the disease, it became so alarming, that Boerhaave was sent for. Finding that the usual remedies had been employed, he proposed to have recourse to the operation of Fear: for this purpose the children were ordered to be assembled in a room, where burning cauldrons, with a number of cauterizing irons, had been placed. With much solemnity, of course, he then addressed them; and concluded by saying, that the only remedy for their complaint was a *red hot iron*. He accordingly proposed to his brethren who were present on the occasion, that the first patient seized with a fit, should instantly be burnt to the bone with one of the irons preparing in the fire. This proceeding had such an effect, that the disease was immediately checked, and its progress prevented.

Not many years since, an epileptic boy in the Infirmary of Edinburgh was cured, I have been informed, by the sight of one of the soldiers upon guard, presented as an object of Fear. Other convulsive disorders have sometimes been removed by this passion, as the hiccup and whooping-cough.

For

For the cure of the latter, Dr. Willis, who wrote *De Anima Brutorum*, used to put young children into a mill-hopper, which, in his day, was a common, and sometimes a successful remedy. *

By the operation also of Fear, paroxysms of gout are said to have been removed, which, we can readily suppose, if the disease be admitted as an affection of the nervous system. That this is the case, Dr. Cullen hath maintained, since almost all the occasional or exciting causes of the gout act directly upon that system.

These and similar instances related of the removal or prevention of disorders by the operation of that Fear which constitutes Terror, lead some to attribute its effects to a tonic power : but as Terror is only a very high degree of Fear, I cannot assent to

* Cum medicamenta minus efficiunt, apud vulgus in praxi familiari est, ut pro torriculamento, dum molendinum ingens cum stridore, et rotarum aspectu horribili circum agitur, affectus grani sive frumenti receptaculo imponatur, indeque morbi hujus subito curatio nonnunquam contingit.

Willis.

fuch

such an opinion ; since it is repugnant to philosophy to suppose, that the increased force of an agent can occasion any other than an increase of its effect. Upon other principles, therefore, I shall endeavour to account for the success which hath sometimes been derived from the influence of Fear.

It is well known, that intermittent fevers will recur periodically for many months after the exciting cause hath been removed, and without the interposition of any other with which we are acquainted. The epilepsy also, and other convulsive disorders, and affections of the nervous system, frequently return without any apparent cause. Hence one would infer, that the renewal of their several paroxysms is often induced by the force of *habit*, independently of other causes. Whatever, therefore, just before the recurrence of these diseases, affect in any considerable degree the brain or nervous system, whether it be of a debilitating or strengthening nature, may equally interrupt this *habit*, and thereby prevent their attack. But, it is farther

ther probable, that the return of such disorders is prevented by that *attention of the Mind*, which Terror inforces. In this, as well as in every other strong emotion or passion, the Mind is wholly engaged by the object which excites it. Could Boerhaave, therefore, in the instance recited, have so fully engaged the attention of his young patients, by other means than those he employed, I can readily suppose that the same good effect would have ensued: for as attention of the mind diminishes sensibility of body, it is probable that the exciting causes of epilepsy, and of other disorders also, may in consequence fail in their operation. However this may be, there are, I apprehend, few diseases in which extreme Fear, or Terror, can be employed with advantage or safety.

In cases of insanity, this passion is obviously useful, as by its influence the most furious maniacs are often quieted. Hence physicians who attend such patients, derive their consequence and ascendancy, in proportion as they are able to excite dread. We accordingly observe the rage and obsti-

nacy usually prevalent with mad people, generally subside on the appearance of their physician or keeper, so that from these they readily take medicines, which they would not from the hands of others. In mania, therefore, Fear may always be employed with safety, and often with at least temporary advantage.

There is, perhaps, another case in which it might be useful ; in suppression of urine, when occasioned by spasm in those organs which secrete or transmit it. As, however, this particular cause of the complaint cannot be ascertained, its application must be either equivocal or hazardous. The operation of Fear in the cure of diseases is, indeed, in all cases, so uncertain, that it ought, perhaps, to be laid aside as a remedy, unless it could be employed with an address and caution, which require a very great exertion of the human intellect.

In the present day, medical resources are sufficiently numerous to preclude the adventitious aid of terrific causes ; and as the *general tendency* of Fear is injurious, I should

should think it prudent to exclude it entirely from the class of remedies, since we can neither direct nor restrain its operation.

As, however, in particular diseases, and under some peculiar circumstances, Fear hath been found useful, it is not improbable that practitioners, to whom opportunities have afforded but little experience, may be led to an indiscriminate or hasty trial of it, when their patience hath been exhausted, and their hopes frustrated, by the unsuccessful employment of medicines: those, therefore, it may not be improper to caution, by inserting the following from Pechlin; “Febres plurimas quas remediis vulgaris frustra sollicitari vidimus, terror nonnunquam sanavit. Qua occasione, invitati nonnulli methodum per terrorem curandi jactare ausi sunt non perinde felici successu, quod ad temperamentorum in dividua justamque sanguinis et fluidorum proportionem paucissimis penetrare datum est. Rustica sanè est et semibarbara methodus, magno etiam periculo conjuncta terrorem, quem ipsi moderari et singulorum temperiei ex æquo accom-

M 2

“modare

“modare non possumus, in classe juven-
 “tium reponere et quod fortuito accidit,
 “velut ab arte profectum admirari.”

Before I conclude the present subject, I think it necessary to observe, that as Fear is a debilitating passion, and a disposition to it may be either constitutionally formed or acquired from circumstances which occur in early life, every parent should guard against impressions made on the minds of children, by the narration of those silly and terrific stories which haunt a nursery. For although in maturer years the absurdity of them will be sufficiently obvious, yet their operation during the tender periods of life may, perhaps, so far affect the nervous system, as to render it liable in future to be strongly impressed by trivial causes.

C H A P. IX.

Of Grief.

THIS passion of the Mind, from whatever cause it may arise, is *extremely depressive* in its operation on the body. The action of the heart is so much weakened by it, that the blood is not sufficiently propelled to the extreme vessels: hence a settled paleness in the face is observed in those who have been long distressed by Grief.

It is difficult to particularize those disorders, or deviations from health, to which this emotion disposes the system, and, indeed, it would be unnecessary; for as its tendency is *depressive* in the *extreme*, it must be inferred that any of them may arise, which have been occasioned by the mental causes of debility already noticed. Various
 affec-

affections of the stomach, however, are complaints which generally first happen ; as loss of appetite, nausea, a sense of weight and fulness, &c. &c. accompanied frequently by a bitter or ill taste in the mouth, and by either costiveness or diarrhoea ; disturbed sleep also, and a diminution of perspiration and urine, are generally attendant circumstances. The body in consequence becomes emaciated and feeble, and the most beautiful countenance of youth is exchanged for the meagre visage of age ; the eyes appear retracted within their orbits, the nose sharpened, and the features shrunk away. As the force of circulation is considerably weakened by the influence of this emotion, congestions and obstructions in the abdominal viscera are particularly liable to succeed its operation. Hence persons afflicted by Grief are often carried off by dropsy, or by a gradual decay.

Among the variety of causes which occasion Grief, there is one which makes an impression on some minds that can never be erased, viz. *a separation from friends and country.* When this happens, the most obstinate

stinate bodily complaints ensue, such, indeed, as cannot be removed by the power of medicines.

This cause of Grief hath been particularly noticed in the inhabitants of Switzerland, whose attachment to the *natale solun* is so considerable, that soldiers removed even from the Canton in which they were bred to an adjoining one of the same climate, have become so dejected, that they either died, or lost their health and strength, so as to be unfit for service. In these, medicine was of no avail, and they recovered merely by returning to the district from whence they came.

Similar instances have happened in other countries, one of which occurring lately in our own, I shall insert, as a sequel to the present chapter :

Dr. Hamilton, of Ipswich, gives the following relation—In the year 1781, while I lay in barracks at Tinmouth, a recruit, who had lately joined the regiment, was returned in the sick list, with a message
 3 from

from his captain, requesting I would take him into the hospital. He had only been a few months a soldier, was young, handsome, and well made for the service ; but a melancholy hung over his countenance, and wanness preyed on his cheeks. He complained of universal weakness, but no fixed pain ; a noise in his ears, and giddiness of his head. Pulse rather slow than frequent, but small and easily compressible. His appetite was much impaired. His tongue was sufficiently moist, and his belly regular ; yet he slept ill, and started suddenly out of his sleep with uneasy dreams. He had little or no thirst.

As there were little obvious symptoms of fever, I did not well know what to make of the case. I suspected he might be under an incipient typhus, and ordered what I judged necessary to obviate it. Some weeks passed with little alteration, either for better or worse, excepting that he was evidently become more meagre. He scarcely took any nourishment, yet had hitherto sat up out of bed some hours every day. At length he became indolent ; seldom sat up
at

at all, was constantly dosing, yet his sleep was never so sound but he could answer when spoken to; he sighed deeply and frequently, nor could his attention be directed to any external object. Something, it would seem, hung heavy on his mind. He never had any cough; yet since he came into the house had wasted away considerably. Exercise was recommended, and used as far as he could be roused to take it, which was never without reluctance. He was put on a course of strengthening medicines; wine was allowed him: all proved ineffectual. His pulse had changed with his appearance, and was now small and quick; an evident fever of the hectic kind, as it seemed, with an evening exacerbation, took place. He had now been in the hospital near three months, was quite emaciated, and like one in the last stage of a consumption. His eyes were grown hollow, cheeks prominent, nails incurvated; adnata pellucid; and he was so weak in his limbs, that he could neither get in or out of bed without help; of late also, he had night sweats. In short, I looked on him as lost.

On making my morning visit, and inquiring as usual of his rest at the nurse, she happened to mention the strong notions he had got in his head, she said, of home, and of his friends. What he was able to speak was constantly on this topic. This I had never heard of before. The reason she gave for not mentioning it, was, that it appeared to her to be the common ravings of sickness and delirium. He had talked in the same style, it seems, less or more, ever since he came into the hospital.

I went immediately up to him, and introduced the subject; and from the alacrity with which he resumed it, (yet with a deep sigh, when he mentioned his never more being able to see his friends) I found it a theme which much affected him. He asked me with earnestness if I would let him go home. I pointed out to him how unfit he was from his weakness to undertake such a journey (he was a Welchman) till once he was better; but promised him assuredly, without farther hesitation, that as soon as he was able he should have six weeks to go home. He revived at the very thoughts

thoughts of it. At this time, however, I made a promise which I knew it was not in my power to perform, without the consent of the commanding officer, who alone can grant furloughs ; but as my hopes of his recovery were very slender, my rash promise could give me the less uneasiness ; and my scheme was to animate his hopes, and endeavour thus to take advantage of the change that his Mind might undergo by it, to co-operate with me in removing, if possible, the malady.

It seems he had requested leave to visit his native place soon after he joined ; but being only a recruit, and but a few months from thence, he was refused. This had hung on his spirits ever since ; and from thence I now dated the origin of his illness. I intreated him to take food to strengthen him for his journey ; and as soon as he was able to go out into the open air a little every forenoon, when the weather would permit, that he might be the sooner able to go home. He listened eagerly to every word I said. In short, his appetite soon mended, and I saw in less than a week, evident signs

of recovery. He was now lively, though so weak that he could not get in or out of bed without assistance; he strove to sit up; two men took him between them in the heat of the day, and placed him on a seat they had erected for him on the beach, where he had a view of the shipping, for it was on the sea-coast. In a little time he was able to walk. Every visit I paid him he resumed the subject of *the furlough*; which I persisted in promising, seeing the good effects it had already produced; and in less than two months from the time he had received this promise, he was able to leave the hospital and go to his barrack room.

I set myself about endeavouring, as far as in me lay, to accomplish my promise; for he paid me almost daily visits, assuring me he was able to undertake his journey, if I would allow him, for he firmly relied on my word. I was in some dilemma now how to act; yet his story was already known throughout the regiment, and the escape he had from imminent death. The deception, however, if I had dropped it here, was tenderness, and a regard for his recovery;

but

but I went farther : I made public to all the officers the method I fell on to recover him ; and told them, moreover, that if I did not succeed in obtaining a furlough, I was sure he would relapse, as soon as he understood his expectations were to be frustrated. I won them over to my interest. The story was publicly talked of. The commanding officer was likewise acquainted with it ; and the request was now made to him, which he obligingly granted.

C H A P. X.

Of Anxiety.

THIS passion appears to be of a mixed nature, and seems to arise from the alternate operation of Hope and Fear. The circumstances which may occasion it are various ; but refer in general to the common concerns of life. There is, however, a certain state, *dependent on the acquisition of wealth*, to which mankind have affixed the term Prosperity, and which hath consequently engaged their more particular attention : hence the possession of riches hath been considered as the chief source of happiness. When this opinion prevails, the Mind must be often agitated by considerable Anxiety ; since riches are acquired by uncertain efforts, and numerous competitors occupy the same avenues in pursuit of them.

The

The pursuit, indeed, after any object which we deem necessary to our happiness or welfare, must be attended with some Anxiety.

This passion, therefore, is in some measure natural to every individual, and a propensity to it is, perhaps, given to the human Mind, for the purposes of self-preservation and public good. Anxiety for personal welfare prompts us to the means of acquiring it, and a solicitude for honourable fame leads to actions of public utility. The mind is, however, sometimes preternaturally anxious, or, in other words, anxious over-much : this generally arises from a depravity of judgement, which disposes men to place either too high a value on what they have never possessed, or too weak a confidence in their present enjoyments. In the latter case they are often uneasy, lest some unforeseen incident should interrupt their tranquillity : such, therefore, diminish their present happiness, by entertaining apprehensions for its continuance. An Anxiety of this kind is, in some instances, so considerable, that persons whose situations in life afford the most ample means
of

of enjoying it, becoome truly miserable by anticipating the possibility of a change.

There is, however, a source of Anxiety, of all others the most insuperable, as it proceeds from thoughts which relate to a future state of existence. This may be termed *religious Anxiety*, and is not unfrequently excited in persons of weak minds, by enthusiastic teachers of religious duties. A melancholy circumstance having happened within my own knowledge, in consequence of such Anxiety, I shall in fertit.

About fifteen years ago, a man in the neighbourhood of Fleet-street, of a very religious disposition, and perpetually anxious to insure a state of happiness in a future world, was found in a very shocking and dangerous situation. He had been attending to the discourse of a very popular preacher on the subject of libidinous enjoyments, and from the impression it made upon his Mind, he returned home with a full resolution to eradicate what only, as he supposed, could occasion a passion for them. He accordingly attempted castration, and would have com-

completed his design, had not the pain and faintness occasioned by the operation, forced him to relinquish it. The late Mr. Crowther, who at that time lived in Boswell-court, was employed in this case as surgeon.

In persons who labour under a state of Anxiety, the appetite for food is uncertain, and the pulse irregular; being at one time slow, at another quick, and, in general, feeble. Sleep also is frequently interrupted by incubus, or frightful dreams. These irregularities, more or less, prevail according to the light and shade, which brighten or cloud their prospect.

Those of anxious dispositions may, notwithstanding, pass many years without suffering any subsequent bodily infirmity: at length, however, their nervous system is so impaired by reiterated counteraction of Hope and Fear, which constitute the passion we treat of, that the whole body becomes relaxed, and liable to any of those disorders to which debility predisposes.

Of the several organs which may be injured by the long continuance of this passion, the brain, as being primarily affected, is the first that in general gives way. This appears from a failure of memory, which usually ensues, and from a distrust and doubt the mind frequently entertains of the most common facts ; hence fatuity or mania are the more frequent consequences of obstinate Anxiety.

It is incumbent, therefore, on every individual, in whom an anxious propensity is considerable, to oppose it as much as possible, since it is, perhaps, more prone to increase by indulgence than any of the passions we have mentioned. For this purpose we should endeavour by every means to divert the Mind from those particular thoughts which usually excite it. Hence the study of natural philosophy, or of the arts, or any other subjects, whether of amusement or profit, may be of the highest importance ; as it is certain that where mental resources have been fewest, the passion of Anxiety hath prevailed the most. It accordingly happens, that persons who have

with-

withdrawn themselves from the bustle of public life to which they have been long accustomed, and especially if they give up society, which is often the consequence, under a notion of ease and tranquillity, are more particularly liable to the intrusion of it. For such is the constitution of our nature, that the Mind left to the society of itself, soon destroys its own powers, and every faculty of enjoyment. The dulce otium, therefore, so often descanted upon, and which hath been the darling theme of men of business, as well as of poets, frequently proves a very considerable source of human disquietude.

There is, perhaps, nothing better calculated to relieve the anxious Mind, than music; and there are few persons, if any, totally insensible to its charms. We can readily, therefore, acquiesce in the well-known sentiment of Shakespeare,* since
we

* The man that hath no music in himself,
Nor is not mov'd with concord of sweet sounds,
Is fit for treasons, stratagems, and spoils;

we apprehend that the insensibility or indifference to music which hath been supposed to exist, arises only from the nature of its composition, as not according with peculiar dispositions. Every individual, I doubt not, will be affected by tones of some kind, and it matters not whether the mind be pleased with the notes of a bagpipe, or the melody of a flute. That style of music, therefore, which is adapted to the disposition or taste of persons, will, no doubt, be useful in mitigating present cares, and consequently in preserving health.

The ancients entertained so high an opinion of the salutary influence of music, that they have recommended it as a remedy in diseases: instances are accordingly related of its efficacy in the removal of gout and epilepsy, and in the cure of fevers, even of a pestilential nature.

That music may be useful in alleviating the symptoms of particular diseases, and

The motions of his spirit are dull as night,
And his affections dark as Erebus:
Let no such man be trusted.

Merchant of Venice.

thereby

thereby remotely tend to restore health, is very probable, provided the composition be adapted to the nature of the complaint, and employed in a proper stage of it. For example: the more solemn compositions being calculated to depress the Mind, and thereby weaken the energy of the brain, may be useful in inflammatory disorders, by restraining that impetus of circulation which supports them, or by inducing sleep.

On the other hand; in chronic cases, and in low fevers, the lively strains of music may be of advantage, if judiciously employed, as they exhilarate the Mind, and thereby invigorate the action of the nervous and arterial systems.

But whether the efficacy of music in the cure of diseases be admitted or not, we must recommend it in the preservation of health; as it tends either to animate hope, or repress the turbulence of passion.

“ On every string soft breathing raptures dwell,
 “ To soothe the throbbings of the troubl’d breast;
 “ Whose magic voice can bid the tides of passion
 “ swell,
 “ Or lull the raging storm to rest.”

To urge farther the necessity of amusing the Mind, in order to obtain the full enjoyment of health, were needless, as experience only can convince those who entertain doubts on the subject. To experience, therefore, we appeal for a confirmation of what hath, in general, been advanced in the present Essay; relying more on the feelings of nature, than on the deductions of reason.

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