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AN

INAUGURAL DISSERTATION,

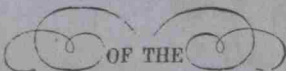
ON

*Life.*



SUBMITTED TO THE

PRESIDENT, BOARD OF TRUSTEES, AND MEDICAL FACULTY



OF THE

University of Nashville,



FOR THE DEGREE OF

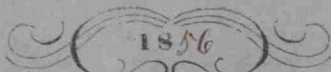
DOCTOR OF MEDICINE.

BY

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OF

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## Life,

For a tyro to attempt the composition of a Thesis upon any subject whatever, knowing it is to be scanned by the most competent critics, it is but reasonable to suppose that he should make the attempt with the utmost degree of diffidence, & to set forth his own thoughts with "fear & trembling".

Life, What is it? I defy all the saints sages or sophists to answer the query, What thing is there on earth whereby, or whereon we can arrive at any definite conclusions, or even a vague conjecture relative to the composition of Life? It is written by inspiration that the Author of the universe "breathed into man the breath of Life & man became a living soul" - from which it would appear that after having moulded and fashioned him to his own will, to wit, in the exact form of his own image, there still was lacking

that peculiar essence, that ethereal something which was necessary to constitute him a Living Soul; just as we may imagine a seed full of germinating power, & placed in a soil where every necessary ingredient reposes that are necessary, or essential to its germination, - although it may be placed thus favourably it is doomed to decay without the genial glow & life giving power of heat derived from the sun the great agent of fructification.

So Adam, although fashioned & formed in likeness of his Creator, - a perfect daguerotype as it were, composed of flesh & blood, & perhaps thousands of elements of which physiologists have never dreamt lay as inert & impotent to move as the disunited elements of which he was composed until Life was breathed into his nostrils, & as the seed in the ground became a living plant to flourish its petals in the breeze, & fill its mission on earth, so man arose & henceforth the creature was admitted

to see, hear & adore his Creator, though not to comprehend him.

Our short Life is but a mystery, amid a universe of mysteries. There is mystery in the universe, the attraction of whose orbs are so mutual, & motions so uniform; there is mystery in boundless space which affects the mind with such sensations of astonishment, & is comprehensions absolute defeat; There is mystery & grandeur in the tornado that demolishes kingdoms in its power as well as the gentle zephyr that rustles the tiniest leaflet, & fans the rose to sleep. There is mystery in the ocean which ever rolls as nature's most fruitful & restless child, as well as the tiniest dewdrop that sparkles on the petals of the tulip;—there is mystery in light which perfects our vision, without which the finest & most exquisite ocular organization would be of no avail;—there is mystery even in our perception of mystery, which can only be

brought about by a most inscrutable process of the most intangible structures (the mind) of which we have any cognizance. Many there are who can analyze, or name the chief or most potent ingredients of the different substances of nature, as brought to light by the dim but glorious light of chemistry, but who has attempted to analyze the mind of man? yet life is as little capable of being understood as mind. Again what is Life? How many efforts have been made from the beginning of time till now to ascertain its mechanism, or with so little success! Yet Life is the thing with which the physician has to deal. And if there is any one thing more calculated than another to humble the mind, or check the pride of a sensible physician it is the humiliating thought that his business is to deal with that of which he knows nothing. Indeed ought not man whose prerogative it is to think first endeavor to understand himself?

Can any thing earthly interest him so much as Life?  
Yet these researches so multiplied, these efforts so  
ably conducted, & these labors of all sorts pursued so  
perseveringly by the most celebrated, scientific and  
efficient men have hitherto served no other end than  
to show him how deep is the mystery, how impenetrable  
the veil that masks his existence.

A strict scrutiny in regard to the differences between  
organized & inorganized matter leads but a step far-  
-ther. The first class comprises all animals & vegeta-  
-bles, the particles composing them being in a state of  
perpetual change; the 2<sup>nd</sup> comprehends all matter  
destitute of a living principle, the particles composing  
them being entirely subject to chemical change &  
mechanical laws. The 1<sup>st</sup> class are supported by air,  
food & by matters extraneous to themselves, - being endow-  
-ed with a vital principle which operates alike with  
-in vegetables as animals, & which alone successfully  
resists putrefaction or dissolution, & which is opposed

To death, which principle we denominate Life.

But this principle has ever eluded the researches of man; all that we know of it is in its effects, enabling the organized body to resist putrefaction, & in a limited degree maintaining a temperature different from surrounding objects: deprived of this principle both animals & vegetables are subject to inevitable decay & dissolution, their component parts are dissolved<sup>d</sup> & they return to the earth from whence they were taken?

By observation man has learned the following distinction between organized & inorganized bodies, - that in substances without life their parts are analogous, & not dependent upon each other so far as we can discern farther than the attraction of cohesion is concerned.

On the contrary the parts of an organic body are mutually dependent upon each other, & will not constitute a perfect plant, or animal without being united. Again inorganic bodies are made

by molecular attraction, but organic bodies owe their existence to beings which to themselves are similar & which generally proceed from seeds or eggs respectively, Again inorganic bodies grow merely by the addition of new particles similar to themselves; the organized grow by converting to their sustenance foreign substances which they receive in shape of nourishment; & though the inorganic have no particular form, & as they have no Life are not subject to death, the organized have a determinate or peculiar form & limited duration, & being possessed of Life are subject to death. Thus we see that in running this short comparison between organic & inorganic nature they materially differ in structure, origin, development & termination, So far we are taught to discriminate between organic & inorganic life, though it does not in the least degree show or teach us in what the power of life consists.

Aristotle believed there was a gradual rise or



progress from inorganized matter up to man, & from man upwards to Deity. This grand idea of a regular chain of beings, propagated by so renowned a philosopher presented itself to the minds of men with much grandeur & simplicity, & received many votaries, But subsequent investigations have produced facts which do not seem to accord with this beautiful theory.

He considered plants as intermediate between inorganized matter & animals. Plants, he said were not distinguished from animals in being destitute of hearts because some of the inferior order of animals were without that organ; but plants have no consciousness to know of things exterior to themselves, animals have, & upon this distinction he founds their chief difference. But we think it would have been difficult for him to have discovered marks of consciousness in the sponge, or any sign by which this animal has cognizance of things exterior to itself, though it would take but a limited amount

of perception to recognize marks of apparent sensation in the various sensitive plants, though modern physiologists & naturalists attribute their action to cellforce excited to action by exterior agents, which we consider as the more plausible supposition. Nor do they differ (i.e. the higher order of plants & the lower of animals) in regard to reproduction. Although we see the higher order of each produce seeds & eggs respectively for the perpetuation of their species, yet the zoophyte apparently departs from the general rule of animals in forming a species of germ like the bud upon plants which upon being detached becomes as perfect an animal as the parent stock.

Every gardner knows that the same can be effected with most plants by grafting & budding; & it is contended by physiologists & ~~other fungous growths~~ that the polypus & other fungous growths may be propagated in the same way (i.e. by engrafting them upon other animals).

The existence of consciousness by which the individual becomes sensible of impreisions made upon its bodily

structure, & the power of spontaneously exciting contractions  
 in its tissues by which evident motions are produced are  
 to be regarded as the characteristic attribute of beings  
 composing the animal kingdom, although its position  
 by many of the tribes which seem to have their  
 most appropriate place in that kingdom is extremely doubt-  
 -ful. Of the movements exhibited by animals there  
 are many which are no more to be regarded as indica-  
 -tions of consciousness than those executed by certain  
 plants, being simply the expression of a peculiar kind of  
 Life force, or Cellforce in the different tissues by the aid  
 of which these motions are produced. The life of such  
 beings bears a much greater resemblance to the vegetable  
 than to the higher order of animals, - their organic func-  
 -tions being performed with scarcely more sensible move-  
 -ment than is palpable in plants; & of the motions which  
 they exhibit it is probable that most of them result from  
 the simple contractility of their tissues, they being stimu-  
 -lated to action by extraneous causes.

“But man (in the language of another) so far from his organic life being in predominance is apparently subordinate to his animal functions. Says he, “if we could imagine his nervo-muscular apparatus isolated from the rest of his corporeal structure, & to possess the power within itself of maintaining its integrity we then should have all that is essential to our idea of Man?”

Yet we know that this nervous apparatus is totally dependent for its functions upon the nutritive apparatus; indeed the whole object of the latter appears to be to comply with these requisitions. How humiliating should these reflections be to the man who prides himself upon his powers, either psychical or physical to know that he is dependent for the same, at least in part, upon a due supply of bread & meat.

In respect to instinct some animals are apparently inferior to some vegetables; some plants folding their leaves upon the slightest touch, - also by following the direction of light, & by presenting their upper surfaces

to the sun, - the seed of plants in what ever situation they may be placed if they germinate invariably send their root downward & stem upward, thus seeming to exhibit more instinct & sensation than is shown in the lower order of animals. Chemists too have endeavoured to define or illustrate the difference between the animal & vegetable worlds. Upon examination they found Carbon, hydrogen Oxygen forming the main principle of plants as well as animals, Carbon prevailing in the one while hydrogen is predominant in the other. They have observed that plants inhale carbon & exhale oxygen whilst in animals the contrary is observed. Thus in casting a casual glance over all animal & vegetable nature, from the giant oak that successfully battles the Tornado upon the mountains brow to the tiniest floweret that has but a momentary existence, - from the massive elephant that prowls the uninhabited forests of India to the most ephemeral insect of tropical climes we see one universal principle

or essence pervading the whole, causing the integral parts of which they are composed to maintain their due relation to each other, preserving them from decay & dissolution, preventing the disintegrating laws of chemical affinity from exercising its wonted force; in all of which we discover a force, or power which force or power we denominate Life.

Yet "What is Life?" I believe the best & most concise answer to the query was given by prof: Buchanan, to wit, Organization in action. But perhaps we can illustrate by asking what is force. On viewing machinery in action we see every thing connected therewith to act in accordance with the end or purpose for which it was made, but without understanding the nature, production & power of steam by which it is made to act we would be as much in the dark in respect to the cause of action as we are of that of Life. Another answer by prof: Bowling is that "Life is Divinity." But we on

viewing a block of wood see that it adheres with an attraction, or tenacity equal to its cohesive power, But in what does that cohesive power consist?

We remain as ignorant as the man who gave to that particular principle a name. Prof. Jennings defines it by stating "that every thing which cannot refered to either chemical or mechanical action must be denominated Vital action." So we on viewing the vast machinery of the universe see that the planetary system is governed by certain laws or forces, which has ever been so immutable in their motions revolutions &c. &c.

Concerning which Sir Isaac Newton made the discovery that each & all were exerting an influence upon the others proportionate to their extent of matter, which influence he called attraction of Gravitation.

In like manner we in recognizing the type of all human beings in ourselves behold a bony skeleton, the frame work of the structure, bound together by ligatures, covered over with muscles, tendons, tissues &c.

- through these traverse the vascular system, and through this flows a fluid destined to the renovation & sustentance of the whole fabric, & to these are added the cerebral & nervous system ramifying the whole with requisite minuteness, conveying thought, sensation & motion, causing the different mandates of the will to be executed. Connected with this beautiful machine there is an ethereal essence, or spiritual power which quickens, enlivens & animates the whole, & this essence we call Life, & which we are enabled to know & recognize only by its effects,

Beyond this it appears as if we were doomed never to pass, & reason perceiving herself prisonbound within this narrow limit makes but a feeble effort to advance & quenches her guiding light in despair. And although an Aristotle, Lister, Bell, Buffon & others have lived and uttered their thoughts for the benefit of humanity, yet we must confess on viewing the present



state of knowledge to own its vast imperfections,  
 & proclaim the newton of <sup>physiology</sup> ~~philosophy~~ to be as yet  
 unborn. In respect to the solar system we  
 by the dim light of philosophic reason are led to  
 know that if the attraction of gravitation were to  
 cease each orb would fly to endless space, & where  
 union & harmony has reigned so long, discord & proba-  
 bly total annihilation would supervene. This conje-  
 cture relative to gravitation would teach the same  
 in respect to all animated nature after their  
 bodies have become destitute of the principles of Life  
 for so far as we know this alone can prevent the  
 disintegration & chemical decomposition which is  
 the ultimate & universal consequence of the extinction  
 of Life, each element retaking its own, or that for  
 which it has a chemical affinity until those of which  
 we are composed are as widely spread & far asunder  
 as the utmost parts of the earth. May not life cease for  
 a while as many of the vital functions are known to do?

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For example may not the respiratory functions cease which would cause an undue carbonation of the blood, thence causing the heart to stop its action, then the brain become deranged & the whole system dead to all intents & purposes, or in regard to the performance of its several functions, yet if the respiratory apparatus be caused to react by artificial respiration or otherwise, would not the blood become renovated, the heart thence be caused to resume its action, the vascular system, brain &c. & Life thus caused to recontinue after its extinction, or cessation of the performance of its functions?

The impossibility of determining this question depends upon the inability of ascertaining whether Life is only partly or wholly extinct in such cases of asphyxia or apnoea. From the numerous instances of infants born in asphyxia & subsequently restored to vitality by a few attempts at artificial respiration, as also in cases

of hanging & drowning we are led to the belief that it is both plausible & practicable.

Viewed in their scientific aspect the laws of nature are nothing but general expressions of conditions under which certain assemblages of phenomena occur.

Thus the law of gravitation is nothing but the expression of the fact that two portions of matter will attract each other in proportion to their quantity of matter; So in physiology the law of cell growth holds the same rank that gravitation does to physics, which law teaches that all organized beings originate in or by cells, & also that all the functions of life are carried on by the growth & development of cells. If a natural philosopher were asked why a stone after being projected, invariably makes its descent he would answer gravitation & deem the answer sufficient, in as much as he has referred the phenomena to a general law. So physiologists deem it sufficient to account for all phenomena

not otherwise explicable to refer it to a cell force,  
germ force or Life force. Others refer all causes to  
physiological causation, to material causation, or  
condition, & maintain that Life depends upon organi-  
zation. Others contend that all vital action is but  
a peculiar manifestation of heat, light, electricity,  
mechanical power, chemical affinity &c. But we  
certainly have evidence of a power within the living  
economy whose manifestations are so different from  
that of physical forces that we can not refrain from  
giving to it a distinct appellation, & contend that this  
vital power may exert itself in a variety of ways  
according to the materials & conditions with  
which it may be surrounded. Nevertheless it  
is contended with a degree of plausibility that the  
source of this vital power is not found in the orga-  
nization of the beings themselves, but upon agen-  
cies acting on them from without, somewhat  
in the manner in which heat acting upon water

is the true dynamic agent of mechanical power; in like manner the same agent acting upon a seed in conjunction with other agents, as oxygen, moisture, light &c. we are led to recognize in it the dynamic agent of germination.

From whence organized bodies derive their nourishment can generally be pointed out with a sufficient degree of exactness. For instance we behold man placed in a universe of elementary substances from whose inorganic bodies he either directly or indirectly derives his composition. The plant extracts its nourishment from the earth ~~and~~ atmosphere with which it forms substances of a more complex nature, then the animal availing itself of these supplies forms from them the various structures of its organism, which ultimately by disintegration during Life, or total decomposition after death yielding the same elements to inorganic nature in their first or primitive state. And upon this consideration we would suggest the most satisfactory answer to the query of

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what does the human frame consist would be the  
old bible doctrine that "all flesh is grass." But  
might we not upon the same theological reasoning  
contend that "all Life is air," for it is written  
that "God breathed into Man the breath of Life?"  
It is a beautiful theory, but whether it was atmos-  
pheric air or a spiritual essence, neither divines nor physio-  
logists have power to determine. It is a beautiful theo-  
ry (if it is theory) which is partly revealed by the micro-  
scope concerning cell-force & germ-force in regard to  
the minute physiology of organic nature. The germ, as in  
the egg, merely acting the part of a catalytic agent, trans-  
forming the albumen of which into the proper shape  
& necessary ingredients of the chick, which ingredients  
had no existence in the original egg; the whole process  
appearing to be accomplished through the agency of  
the germ force & a proper degree of heat, as proven  
by the infecundated egg, which being destitute of either  
cannot be infect incubated.

It is established that plants as well as animals are composed of cells, but it appears to be a well authenticated fact that the animal cell cannot like that of the plant generate or form the pabulum for itself out of inorganic matter, but is dependent upon that which has been prepared for it; & this pabulum is furnished to each part of the animal by the circulating fluid, the blood. The contents & composition of animal cells are as diversified as the different tissues of the animal economy; consequently none of them can be formed unless the proper materials be conveyed to them by the blood, either ready formed, or in a state in which the cell itself can exert the necessary transformation. Thus fat, iron, &c. can not be formed without the proper materials in the blood; but however abundant may be the materials of nutrition, or however well prepared for organization, they can no more become organized into cells by their own inherent powers than an apple by its inherent power

transform itself into an orange. They are, & must of necessity be acted on by an appropriate force or power which we deem to be the proper vital force, or Life force.

A beautiful example of life, or formative force is shown in the formation & organization of coagulable lymph, which being effused or secreted by an inflamed surface of living structure, remaining in contact with the same becomes vivified & sensible, & ultimately attains to be to all intents & purposes part & parcel of the animal frame; the beauty of it is that it assumes the structure, modifications &c. & performs the office of the tissue with which it is in contact; with cellular tissue it forms cellular tissue, with nerves it forms nerves, with bone it forms bone &c. But there are exceptions to this otherwise general rule, as in the muscle and cuticle, parts of which being destroyed can never be replaced by their own peculiar structure. For the formation of this new tissue it is necessary that we have inflammation of the part together with



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that state of the system which is favourable to the secretion of this plastic lymph & to that unknown or occult force which out of formless materials is capable of evolving forms. We cannot regard the organic forms of living beings, bearing the impress of ideas that could originate only in divine wisdom to proceed from a force identical with chemical & physical forces, or as a necessary result of any material conditions. This formative, or Life force is the great architect during our foetal existence, & preserves the integrity of the several organs & their functions in after years. It opposes a direct resistance to all disturbing agents, as disease, & is always the most efficient & potent aid of the Physician. But it must be inferred that it is a self-regulating & self-acting power, that will receive no aid or success from science, or the Doctor would be deprived of his mission; on the contrary we know that it is dependent upon external agents to develop & maintain

its activity. In the formation of a single cell we must acknowledge the presence & functions of several forces. Mechanical force is shown in the causation of the shape, position & relations of the cell, chemical forces in the composition, & contents of its walls, &c. together with many other external agents, as heat, electricity &c. but there is presiding over all, directing & regulating their every movement this peculiar Life-force which is different from them all, & all other known forces, & by virtue of whose action the cell acquires the necessary qualifications, & properties peculiar to the species, or organ to which it is attached. Neither can we tell to what extent this vital force exercises its mission. The advancing knowledge of chemical science every year shows that effects which used to be ascribed to vital force is more properly due to chemical, But unless physiologists admit this unknown force, & adopt the phraseology which it necessarily presents, it would be impossible to express

by words many of the ordinary facts of physiology.

Indeed all disease has & may be defined to be an abnormal state or condition of the animal economy, arising from a defective, excessive, or perverted action of the same power, whose office it is to prune, regulate, & to skillfully preside over the whole organism, subduing all irregularities, & forbidding all detrimental innovations which are calculated to mar the harmony, or pollute the integrity of the several other agents, or ingredients necessary for the complete whole.

Considering this occult force in this light we see that there are so many observable results, & so many things that are totally inexplicable by any known law of other forces, that we can not refer them to any other ~~than~~ than a vital force. As before hinted at, the different behavior of the living & dead organism is accounted for by the fact that so long a vital force exists with its normal energy it is an efficient antagonist to all chemical & deleterious agents of the living economy.

But against this doctrine there are several plausible objections. First, that the very presence or absence of those agents most essential to the animal fabric or to the sustenance of life are the most favourable to its decay & dissolution after death. For instance we find that water is necessary in all the nutrient materials & also forms the major part of the organism. The presence of oxygen & heat being absolutely essential to all animal & vegetable life, yet we find these the most effectual agents in the decay & dissolution of the fabric when life shall have become extinct. Furthermore we find that an abnormal increase of these elements are almost equally detrimental to life as their absence. Thus the inhalation of a proper amount of oxygen is absolutely necessary, yet if we are compelled to respire pure oxygen the effect is speedy & fatal.

Also the dynamic agent heat is necessary in a normal degree, but when more is employed than this, the economy is acted on somewhat in the manner of effete matter.

The same may be said in regard to other elements,  
But as we know that the animal organism is capable  
when properly vitalized of resisting a degree of heat  
several times hotter than itself, may we not infer that  
it possesses the same, or a like power in reference to  
other agents or elements which would be deleterious  
by their excess, & may not this self eliminating power be  
the cause why all persons are not attacked with certain  
diseases which prevail epidemically, & where all alike  
are exposed to the contagious effluvia.

Of the decrease of vital force or germinal capacity we  
have satisfactory evidence in what is termed the decline  
of life, in which the formative capacity is greatly reduced,  
& the muscular energy much impaired, or gradually ~~im-~~  
~~paired~~ retarded until they gradually cease. Such a  
death which thus supervenes without the intervention  
of disease or accident is what is termed a normal death,  
or death by Old age: in which the formative power  
gradually ceases, & there is a gradual diminution of every

kind of vital activity, until no degree of artificial heat can sustain the proper temperature, no supply of aliment can renew the disintegrating tissues, consequently the muscles become unable to perform their offices until finally the cessation of the performance or action of those muscles directly essential to Life, as of respiration, or circulation induce the death of the whole organism.

Life is dependent directly upon the several component parts of the animal body & the coaptation & harmony of the same, & indirectly upon the several articles of food necessary to be taken in order to supply or maintain the vigor of the system. As it is adduced that every act either psychical or physical involves a disintegration & loss of part of the system which can only be supplied by a process of nutrition—digestion, assimilation & circulation, by which they are carried to the points where they are needed. A constant supply of aliment is therefore necessary to the growth or

augmentation, as well as, the maintainance of the body in its due proportions. It follows then that all the functions of the body are dependent upon each other, & that none can be restricted without due detriment to the others. Also the regular performance of the several functions are mainly, due to the functions of nutrition & assimilation, which fact should be borne in mind by all practitioners as many diseases may be traced to disordered action of the same.

With respect to the several agents or elements extraneous to the organism which may be regarded as Lifes dependencies, ~~we consider~~ & considering the diversified conditions & situations to which the animal organism may be reduced there are none which may not be conducive to healthful & renovating uses if administered at the proper time & in a proper manner. We know that many substances commonly & properly considered poisons under certain circumstances are proper remedies to effect the elimination of deleterious agents in the

system by chemically combining with the poison, or exciting the secretions whereby it is thrown off, or by substituting its own peculiar action or poison for the preexisting one, as mercury in the cure of Syphilis &c. The operation of medicinal substances mainly depends upon the power they have when introduced into the circulation of effecting a change in the chemical or vital condition of the blood, or the several tissues which it nourishes, which if salutary are appropriated to the wellbeing of the patient, but if deleterious under the then existing circumstances the system tends to free itself from them, & in this it never fails provided sufficient time is allowed, or its action overwhelming.

As proof of poisons being eliminated by secretion their detection by chemical tests of the secretions suffices, & upon this power of elimination the physician should place his main dependence, & should content himself by acting in aid, or in



concert with these acts of nature; & often when  
 the physician is faltering as to his mode of operation  
 a glance at the efforts of nature serves as an index  
 to his course, but he should know that these aids or  
 medicines may become weapons of defence when  
 administered by a skillful physician, but may be  
 a murderous one in the hands of an ignorant person,  
 & although death often grins horribly in our faces  
 in utter defiance of the healing art in consequence  
 of the intractable nature & virulence of disease,  
 yet in view of the ease & comparative tranquility  
 which it affords who does not say it is a blest sci-  
 -ence. Although there are diseases which are  
 intractable to any known remedy, yet as mind  
 or consciousness is requisite to the recognition of  
 either pain or pleasure there are a class of medicines  
 which by their obtunding influence on the nervous  
 system are capable of lulling to ease amid the disinteg-  
 -rating & ultimate dissolution of all corporeal nature

We behold the human organism not only surrounded by every ingredient necessary or conducive to health, but also those which generate disease; & it is curious to know that those very agents which appear most essential to Life & health are often the most prolific source of disease & death. As before remarked there are few if any elements which may not under proper circumstances be conducive to Life; so likewise there is nothing which has not or may not be by improper uses a source of disease, & its consequences death. It would be impossible to specify all the causes of disease, for those commonly called moral causes are as endless as the objects of our wishes, aversions, fears, pursuits, affections, or interests of any kind. That too much ~~the~~ reliance is often placed in the power of nature in resisting disease, & of its self preservation without extraneous aid is evident. That nature is the most efficient aid in the elimination of disease none can presume

to deny, But it can often be most satisfactorily shown that she is incompetent to the task without the allied powers of medicine. Those who rely entirely upon nature exclusive of medical aid should recollect that certain diseases to which the human organism is subject exhibit no tendency to a spontaneous cure, & without the timely cooperation of medicine always end in disorganization, perverted function, & finally Death, as Syphilis. That drugs have the power of protracting life in this instance is incontrovertible.

Other diseases appear to have no definite course or duration, lasting a greater or less length of time, & ending favourably or unfavourably, apparently according to circumstances, as rheumatism, & neuralgia; whether drugs have the power to cure such diseases doctors are not of uniform opinion; they frequently yielding to treatment or whilst under the influence of remedies, at others they resist all form & modes of treatment, when

probably they then ~~yield~~ get well apparently spontaneously. Other diseases appear destined to a particular course, & to have a limited duration & ultimately to end in recovery unless some organic lesion, or other functional disorder should hinder or obstruct its path, of such are smallpox, measles &c. Nature here being competent to the cure, or eradication of the malady but receives important aid by proper medicines. Others exhibit no tendency to a spontaneous cure, or to yield to the power of any known remedy, or extraneous cause, but when once brought into action their progress is essentially & irresistably onward & forward to death, of such are hydrophobia, cancer &c. Even here the healing art, though not affording the least prospect of a cure is capable of giving comparative ease amid the torture of agonizing phrenzy & despair where erst was naught but pain and misery.

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What is Life? Every one knows, or has  
the solemn truth to learn that no matter  
to what extent Life may be prolonged,  
or what the purposes to which it may  
be devoted, or the end which it desired  
to accomplish that it is a unit.

What are its objects? to prepare  
for death, & what that of death  
but to usher us into everlasting  
life, where the physicians  
art is not required.

{ Wm. L. Matthews  
{ Maury ety.  
{ Tenn.

Dec- 27<sup>th</sup> 1855