Prospectus of fifteen lectures on the animal and intellectual economy of man : adapted to the purposes of the medical practitioner, the speculative philosopher, the parent, and the youth, as the medium of that knowledge of God and ourselves, which seems connected with health, piety, and religion / by Alexander Ramsay, M.D. (formerly of Edinburgh,) teacher of anatomy, physiology, &c.; &c.;

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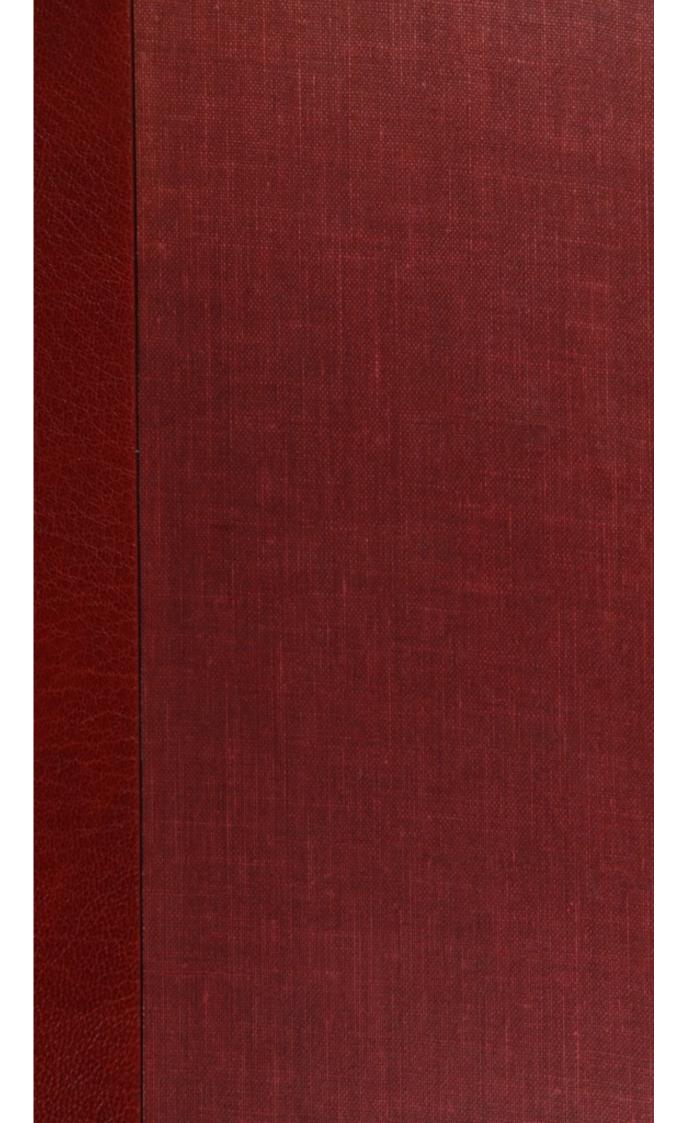
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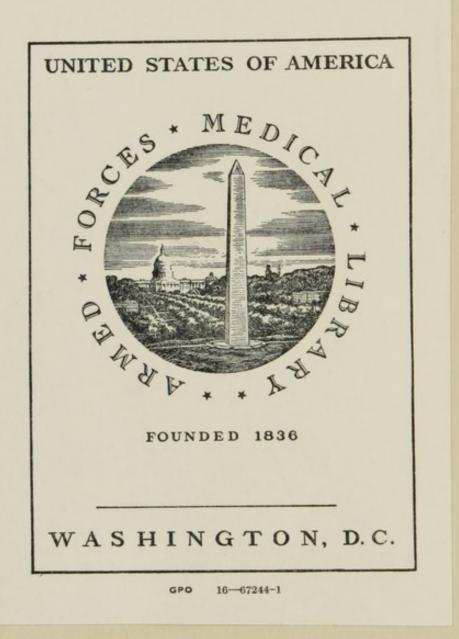
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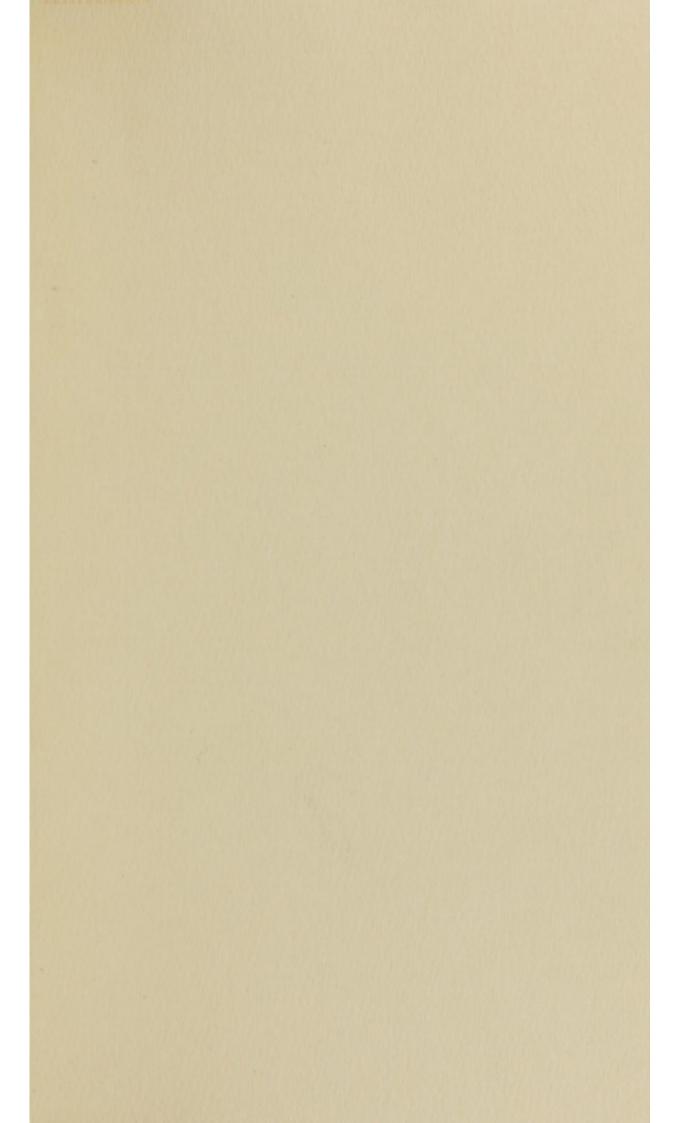
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PROSPECTUS

OF

FIFTEEN LECTURES

ON THE

ANIMAL AND INTELLECTUAL ECONOMY OF MAN:

ADAPTED TO THE PURPOSES OF THE MEDICAL PRACTI-TIONER, THE SPECULATIVE PHILOSOPHER, THE PARENT, AND THE YOUTH,

AS THE

MEDIUM OF THAT KNOWLEDGE OF GOD AND OURSELVES, WHICH SEEMS CONNECTED WITH HEALTH, PIETY, AND RELIGION.

> BY ALEXANDER RAMSAY, M. D. (FORMERLY OF EDINBURGH,) TEACHER OF ANATOMY, PHYSIOLOGY, &C. &C.

NEW-YORK :

PRINTED BY J. SEYMOUR, No. 49 JOHN-STREET.

1816.

INTRODUCTION.

THE Lectures, of which the following pages compose the outline, were arranged, at the request of my philosophical audience, many years back. They attempt an analysis of not only the common materials which continually arrest our senses in a disunited state, but aim also at tracing up, from the humble moss to man, respecting their structure and phenomena. This seems the more necessary, as common opinion, and indeed the natural connexion of soul and body, confound the ideas of material and immaterial. Many good, and the most learned men, have passed through life in misery, from the dread of soul being mortal, because of its phenomena from a connexion with organs and influence of matter on intellectual operation. We should recollect, that this is a state where matter becomes a medium of information to the soul. Why then should we be surprised that matter affects the soul in one way more than another? We shall prove the laws of God infinitely wise. good, and simple. Learned men, as well as Sir Joseph Banks, seem pleased, that, to a certain extent, the delicate line of distinction, between material organic action and intellectual cognizance. may be pointed out.* I have only announced this fact, (page 10) which is detailed in the Essay on the phenomena of the Heart and Brain. But as one chief object of the five last Lectures is to convey notions to the ladies-and as some may startle at my depriving their bodies of feeling-I may mention one circumstance, that the secret entirely rests with our notions respecting feeling .--- I beg leave to ask my fair reader, if her finger is cut, is her finger conscious? Now consciousness is an operation of soul. The finger is composed of bones, tendons, vessels, and nerves-these vessels and nerves have been cut, they are convulsed-and this action is conveyed by the nerves to the brain : here ends material operation or action. Matter cannot feel, is not susceptible of cognizance or consciousness-all of which are mental operations to be defined. See Lecture 13th, p. 11. Phenomena of physical operation of sensation -Phenomena of intellectual sensation, &c.

^{*} As our body may be said to be composed of innumerable organs, of which the soul takes cognizance through the medium of the nerves and brain, as the eye, ear, nostril, tongue, surface of the body, &c. did these agents in themselves feel, the human soul would be distracted, by cognizance of all sensations at the same moment. But the person who reads this paper attentively has no feeling of their arm, &c. at the instant : they have cognizance of purely intellectual operation. Even ordnance may thunder in their vicinity, yet no hearing is perceived, because the soul is engaged in the object before us. Nothing is known by us but what is noticed by soul. Why do you not feel when asleep? Because the brain keeps not up the material agency of cognizance. The cut finger, however, is equally convulsed as when you were awake; but this action is not noticed by soul. See Novice of Clare, p. 11.

LECTURES

ON THE

ANATOMICAL STRUCTURE OF MAN,

AS THE BASIS OF THE CONDUCT OF THE NURSERY IN REARING THE CHILD, AND SCHOOLS IN CULTIVATING THE MIND.

THE DOCTRINES WILL FLOW FROM OUR PRESENT KNOWLEDGE OF ANIMAL ORGANIZATION AND INTELLECTUAL PRINCIPLES.

PROSPECTUS OF LECTURE I.

As these Lectures are founded on the work published by Dr. Ramsay in London, on the Anatomy and Phisiology of the Human Heart and Brain, as the agents principally concerned in the phenomena of Life, Sensation, and Intellection, Dr. R. has, at the request of his scientific friends in New-York, given a copy of a letter to the author, on the subject of the above work, from the celebrated Sir JOSEPH BANKS, Bart. and K. B., President of the Royal Society, &c. &c. The work may be seen at Mr. Samuel Campbell's Bookstore, No. 124 Pearl-street, New-York.

Copy of a Letter from the Right Hon. Sir JOSEPH BANKS, Baronet and K. B. President of the Royal Society, to Dr. RAMSAY.

" MY DEAR SIR,

" SOHO SQUARE, Jan. 29, 1813.

"I return you my best thanks for your obliging present of the valuable second edition of your Anatomy of the Heart and Brain. I have perused it with much pleasure, and I give you abundant credit for your most laudable attempts to destroy the baneful system of Materialism, and to explain *the hitherto* incomprehensible mixture of mortality and immortality of which we are composed.

"How it can have happened that an extended knowledge of any kind could have led to infidelity, is to me wholly unintelligible. Every investigation of Nature, and even of Art, must lead to a conviction of the certainty of the existence of a Power capable not only of creating, but of causing created beings to continue their species. Religious men are always terrified at the idea of Laymen having any superior knowledge, lest they should use it in calling in question those parts of every Religion which depend upon a sacrifice of Reason to Faith; Hence it is that Philosophers have been too much upbraided with the crime, as it is called, of unbelief, when in fact they are better acquainted with the works of their Creator, and more impressed with the certainty of his infinite wisdom, mercy, and benevolence, than any other set of men.

"To you, my good Sir, we are deeply indebted for weaving into the texture of Anatomical Studies, opinions deduced from facts which cannot fail to give the minds of your Pupils a disposition to recollect their Creator, and to adore his benevolence, in the course of those studies which are to make them able to be themselves benefactors of their species. You are, as far as I know, the first Anatomist who has introduced into his Lectures any considerable notices of the wisdom of God in his works of creation : may your example be followed; and thus may the minds of our Youth be framed in a better disposition, and rendered more useful to their neighbours as well as to themselves, than has been the case with the generation now making their exit from the regions we have been, and yet are permitted to enjoy.

> "I beg, my dear Sir, you will believe me "Your obliged and faithful

our obliged and faithful

"Humble Servant,

"JOSEPH BANKS."

This Discourse will form an Epitome of the Fourteen succeeding Lectures, illustrating their importance to all classes of men, and even children, from 8 years and upwards.

LECTURE II.

1st. General notions of Man, as an animal.

2dly. The three important cavities---their contents, as the agents connected with Sensation, Circulation, and Nutrition.

3dly. Muscles which move the body.

4thly. Contrasted structure of those organs which are immediately concerned in the functions of Life, as also the Brain, and those muscles which move the body.

5thly. The vital organs act continually, from Infancy to Decrepitude.

6thly. The organs which move the body and the brain: Sleep one third of human existence.

The Philosophy will not be delivered until the five last Lectures.

*** Boys will be admitted to all the Lectures except the Third and Tenth. Ladies and Young Girls will be admitted gratis to the five last Lectures.

LECTURE III.

Definition of Stimuli, as the Medium of Animal Action; Simple Stimulitheir applications in health; Diffusible Stimuli-their applications in disease; Muscular Matter--its structure, the mysterious irritable agent by which motion is produced, and sensation superinduced^{*}—the source of all animal phenomena, and even intellectual illusion, when the organs of sense fail to perform their offices †; various colour of muscles—the cause of this variety explained; the irritable fibre of muscle; the insensible tendinous appendages annexed to the bones, which preclude concussions that disturb the soul‡; Bursæ of tendons; contraction of muscles from physical causation—from intellectual causation; more powerful in man than any other animal—illustrated by an anecdote of an ancient warrior, &c.

Contrast of muscles, vessels, and nerves of those organs named Vital, i. e. the Brain, Heart, Lungs, Bowels, &c. on which Sensation, Life, and Nutrition depend, compared with the muscles, denominated voluntary organs or muscles, which cloath and move the body and limbs.

In health, the soul has no cognizance or control over the vital organs, though a few exceptions shall be mentioned; wisdom of the ordinary plan observed by Divine Providence; the danger of the contrary .- In health, the soul possesses cognizance of, and has power over the voluntary muscles, i. e. those which move the body and limbs; direction of the muscles of the vital organs, which may be named hollow muscles--they do not possess opponent muscles; direction of the voluntary muscles, which are solid bodies-they possess opponent muscles. The muscles of the vital organs, as the Heart, Arteries, Veins, Lungs, and Bowels, are elongated by their contents, which contents also excite them to contraction, independent of intellectual interference; on the contrary, the voluntary organs are elongated by their opponent muscles, and contract, when in health, only by the influence of the soul. This is illustrated by the natural attitude of the human arm when hanging carelessly by the side. When balmy sleep has sealed the senses, and shut out an external world from the eye and ear of the busy soul, the organs recover that tone worn out by mental exertion during our waking moments; when sleep is consummated the soul bursts open the upper eye-lid, by her influence on that muscle, which is exerted during the waking moments-hence this stimulus fatigues the muscle. The soul rouses the body to arise from our couch, conscious of energy; by her influence our body stands firm, walks, sits down, or carries about our animal fabric, for sixteen or more hours, unconscious of the weight of our skeleton, clothed with muscles, and burthened with viscera in the three cavities !

The vital organs never weary when in health. The voluntary organs do weary every 16th or 20th hour. Whatever fatigues the system, from the laws connected with the vessels and the brain, promotes sleep, and thus precludes danger; if indiscreet exertions are protracted, fever, apoplexy, &c. commences, and death

^{*} See first Fasciculus, or Work on the Heart and Brain, note, page 6.

[†] See first Fasciculus, note, page 53, &c. This subject will be understood, when dreaming, madness, &c. are explained, as connected with the brain and state of the heart and arteries.

¹ Soul alone feels. See first Fasciculus, note, page 58.

often ensues. Millions drop into a premature grave from this cause. See Fasciculus, Note, page 54. In the vital organs, there are not any valves, excepting at the root of the vessels of the heart*. The structure of valves demonstrated; the veins of the voluntary organs possess valves. The nerves of the vital organs are few, though peculiar and small; the vessels large and innumerable. The nerves of the heart are smaller in proportion to the organ, than any of the other viscerat; seeming motive for this. The nerves of the voluntary organs are numerous and large, the vessels small in proportion to the organs; seeming motive for this.

LECTURE IV.

THE Ape species, will be the subject of this evening, in a state of dissection, of the brain, contents of the chest and abdomen, &c. as the organs on which sensation, circulation, and nutrition depend—as also the muscles of volition of the ape; the mixture of this animal, as participating, in his organs, of the human and dog species.

Dr. Ramsay laments the still subsisting ignorance under which we labour, respecting the secret laws of the animal economy.—He particularly regrets, that even a brute should, on this occasion, suffer death, as an experiment, to explain the deleterious influence of powerful stimuli, so much resorted to, as the common applications of human beings. An attempt will be made to imitate apoplectic affection in this animal—the result will be explained on Tuesday evening. An attempt will also be made to exhibit the Lacteals filled with chyle.

On Monday, at 7 in the evening, precisely, subscribers to the whole course, will be admitted to view the progress of dissection, as some interesting phenomena may disappear before Tuesday evening.

On Tuesday evening, after the general analogy of the muscles are explained, there will be casts taken from the contents of the cavities of the cranium and abdomen, that gentlemen may become masters of this important art, so indispensable to the Surgeon, the Physician, and Philosopher.

LECTURE V.

DOCTRINE OF THE BONEST.

ELASTICITY explained, as aiding in breaking concussion among the joints of the body.—The three principles of elastic substance illustrated.

* The absence of valves and opponent muscles in the vital organs, can be shown the most perfect mode of construction, to effect their intended purposes. But the least violation of the rules of temperance endanger their derangement ; hence our numerous and increasing maladies—hence anatomy illustrates the laws of God, not to be arbitrary, but the absolute interest of man, and the heavenly precepts of the Creator of our bodies and Saviour of our souls.

t This seems to prove, that muscular action is independent of nervous influence. See Fasciculus, note, page 52.
‡ Superinduced disease of Bones will be explained in the Tenth Lecture,

and the difficulty of cure assigned to a disease of the lymphatics, first described by Dr. R. in Europe. The component ingredients of bone analyzed by chymical experiment.— Structure of healthful bone—its arteries, veins, nerves, and lymphatics.— Constitutional diseases of bone—treatment of these diseases.—Deformities may be partially removed, even after the period of man and womanhood, and this without the aid of machinery.

The Divine Wisdom evinced in the shape and position of bones.—The comparative analogy of bones of different animals : no difference is observed, but such as adapts the animal for its particular offices.—In all the works of God, deficiency can never be detected, superfluity is never seen, simplicity is ever present.

Cartillaginous surfaces of joints—their structure—their synovia, or lubricating fluid.—Moving cartilages which intervene between bones when the lever is powerful and elongated*.—Ligaments of bones—their structure and offices—accidents to which they are liable.—Treatment of sprains—of Luxations.

General notion of the entry of the arteries of the Brain.-Of the exit of the veins and nerves.-One cause of Apoplexy hitherto not attended to.

Dr. R. will allot an hour on certain days for young practitioners, who may desire any private instructions, in classes or singly.

In cases of fracture and luxations, a perfect knowledge of the positions of the muscles, as well as the state of capsules of joints, become indispensible.--Young practitioners and students will therefore find it of the first importance to become masters of the doctrine of muscular direction, pointed out by the drawings of Fibre, and also the moving Diagram, which illustrates the various laws of power.

LECTURE VI.

THE structure of the Heart and Arteries—their economy defined, as in the work published by Dr. Ramsay in Londont, on the Heart and Brain, as the agents chiefly concerned in the phenomena of Life, Sensation, and Intellection.

Mal-formations of the heart--varieties of the arteries-danger of operating for Dropsy from this cause.-Diseases of the heart from physical causation-from intemperance of conduct--from passions, &c.

LECTURE VII.

THE Brain—its structure—its divisions into the department where the last operations of physical action is taken cognizance of by the soul—and that portion connected with the animal system, which influences the vital organs, independent of soul.—Nerves—their structure and functions.—The absorbents, and their glands—their diseases described.

^{*} It is on the jaws, clavicle, knee, &c.

t Gentlemen who are in possession of this work, or who wish to become subscribers for the few copies which will be sold in New-York, will, by this and the succeeding Lecture, acquire a key to the plates and doctrines of that Essay.

LECTURE VIII.

Notion of the termination of arteries in the vital organs, i. e. the Heart, Bones, and their appendages, Muscles, Arteries, Veins, Nerves, Brain, Lungs, Bowels, and Skin*.—Treatment of the Skin by cold affusion—warm affusion.— Oil skin.—Theory of the influence of these stimuli.—Theory of temperate climates.—The air of mines, stables, &c. in lung complaints.

LECTURE IX.

Summary of the eight foregoing Lectures.

LECTURE X.

Observations on the diseases incident to man in civilized society.

Boys cannot be admitted to this discourse, nor any young man under 18 years of age, unless introduced by a subscriber.

To the five subsequent discourses, each subscriber has the privilege of introducing a lady or young person of either sex, gratis.

Application of the notions delivered in the ten preceding Lectures, founded on our knowledge of the animal and intellectual economy of Man—by which means the body may be reared, and the powers of the soul developed on evident principles, free from the caprice and vulgarity too common in the Nursery †.

LECTURE XI.

GENERAL NOTIONS.

The propensity of inquiry.—The influence of popular opinion, and the power of example and habit.—These last circumstances seem to spring from the peculiar genius of Man, as a reasoner.—Hence the infinite diversity of human opinions respecting the same objects—hence universal felicity from this passivity of human souls, a consequence of no innate ideas in the case of man, though present in all brutes.—The famished native of the polar region extols his country—the contrasted sable son of Afric's scorched plain looks down with pity on all other situations—the inhabitant of the temperate zone looks up with equal gratitude to Heavenly goodness‡.—Happiness is allwhere, disease everywhere, and death is nowhere shut out.—Deduction.—In the present age, where intelligence is so general, there seems a necessity for its direction.

> The same sun that ripes the grape Turns the wine to vinegar.—POPE.

* Every organ is equally alive, and equally capable of inducing death when deranged.

+ Dr. Ramsey, anxious to accommodate himself to the pecuniary pressure of the present moment, begs leave to notice, that subscribers have the privilege of introducing, gratis, a lady, or young person of either sex, to this and the four following Discourses.

[‡] Man catches the spark of human opinion from local causes. All men exclaim, with equal zeal, "My country!"—He knows no other chain of reasoning or election,—until civilization rouze a Newton, a Bacon, or a Colum bus to think for themselves. Are these last therefore the more happy? Only if they are Christians.

General notion of God's providence respecting the heavenly revelations from the fall, adapted to the state of gradual intellectual developement in the Patriarchal, Mosaic, and Christian Eras .- Christ came when he was required and appreciated, and when deception could not be passed on the enlightened Greeks and Romans* .- Upon this principle we require increased attention .-Deductions drawn from those portions of the globe, from the fall to this moment, where natural and revealed religion subsists .- No perfect natural notion of God .- Wonderful penetration of ancient philosophers .- Pythagoras-his notion conveyed by the letter Y .-- Plato's notion of Immortality; Socrates' of Virtue; Cato's of Patriotism .- Diogenes, &c .- Imbecilities of these great men, compared with the untutored Israelite or Christian .--Means best adapted to restore Nature to its highest degree of excellence and felicity: viz. By instructing daughters, sons, and nursery-women in those principles which elude that false taste, that, under colour of advancing human enjoyments, vitiate the true relish of them .- Deductions drawn from Penelope, Arria, &c. and the ages when Egypt, Greece, and Rome became the umpires of the world.

The following Lectures aim at a humble attempt to develope a short chain of proposals to the enlightened world; by which means the salutary objects mentioned may be contemplated by others, be matured, and be subservient to the good of human nature, as the medium of the best proof of our love of God.

LECTURE XII.

PHENOMENA OF MATTER, LIFE, STIMULI, AND DEATH.

THE elements of Matter seem indestructible, continuing the same at this day in quantity and quality, in the vast volume of nature, as in the morning of Creation—mutability, as to situation, seems its fixed law, by which succession of Minerals, Plants, and Animals subsist[†].

> "Matter, not long the same appearance makes, But shifts the old, and a new figure takes; If now she lies in winter's shrivell'd arms, Dishonour'd and despoil'd of all her charms, Soft vernal airs will loose th' unkind embrace, And genial dews renew her wither'd face; Like sable nymphs transform'd, she's now a tree, Now sweeps into a flood, and seeks the sea; That now a gaudy fly, was once a worm, That which above's a vapour, below's a storm. This ooze was late a monster of the main, That turf a lowing grazer of the plain; A Lion this—that o'er the forest reign!

^{*} Skepticism pervaded Greece and Rome; hence they reared the altar to the unknown God, of which heaven was to make use by the instrumentality of St. Paul. The infidelity among the Jews was equally marked.

⁺ I waive in this plan to notice the notions of modern chemistry, in speaking of Matter.

Regard that fair, that branching laurel plant; Behold that lovely blushing amarant.— One may have William's shatter'd frame assum'd, And one from bright Maria's dust have bloom'd !"

The elements are a common boon, participated by minerals, plants, brutes, and men—indestructibility of matter proved, by an experiment on an oxyde of metal—weakness and impiety of contemning matter, which was participated by the holy Jesus himself *.—'Tis not in these common principles, that the sublime considerations of philosophy consist, but in the mysterious varieties called into existence by Divine Power, by the same means.—The materials which circulate in the worm, may, ere long, hold converse with an immortal soul †. The air evolved by a plant is inhaled by animals—vice versa ‡.

Stimuli defined—unorganized matter considered—nothing can live or become organized, as plants or animals, unless it is perfectly decomposed or dead, in the soil of plants, or the stomach of animals.

Presumption and ignorance occasions our admiration of some objects, and our looking down on others—all the works of God exhibit, equally, the phenomena of his adorable attributes, corroborated by the phenomena of the operation of the fish, &c.

"Nothing great, nothing small."

POPE.

A vigorous plant or animal, evince incessant material death and resurrection ϕ . No plant, no animal, or any created thing, is for two seconds the same being—mutability is the character of time and material existence.

The stupendous luminary, which guides and gilds the planetary revolutions the chaste lamp which cheers the night—the starry hosts that bespangle the sable canopy of earth—the earth itself, and all the myriads of beings which drink the cup of bliss on its surface, revel in its bowels, in the waters, or hover in the sun-beams of a day in the atmosphere, have changed since we read this awful fact, and have rung out one little moment of temporary existence, one fatal knell, which, by repetition, shall shortly terminate in dissolution.

The act of living itself, is a living dissolution-this illustrated.

The principle of life ever the same—not a substance or a law, but a gift from the sacred hand of the Creator, during which, organization runs through its progressive stages of being.—Comparison of plants and animals in their structure ||.

* We know no more of matter than of spirit.

‡ Chemical analysis of gaseous matter.

A This will be illustrated by the laws of digestion, chylification, and absorption.

 \parallel No creature can live, but by the continued influence of God's power.—He withdraws his finger—they are troubled and expire; excepting, however, in the case of the fig-tree, cursed by Jesus—Sapphira, &c. where death ensued in vigorous subjects.—Dissolution, in general, takes place in plants and animals from disease or age, in which case the organs fail to perform their office.

[†] Parallel scriptures: John i. 3. Col. i. 17. Acts xvii. 28. Eccles. xii. 7. Matt. iv. 4. Deut. viii. 3. Comparative notions.—See Moor's Hindu Pantheon, 4to. page 4th.

Death a phenomenon of organic dissolution—fatigue, intemperance, passion, &c. promote this state—sleep a process which puts a momentary period to intellectual cognizance, and thus at the same time renovates the organs and protracts existence—deleterious consequence of diverting physical sleep—instanced in the case of a British officer.—Deleterious influence of too much sleep.

LECTURE XIII.

STRUCTURE of the organs of Life, Sense.---Soul, and its Phenomena. Vital organs-voluntary organs defined.

The five Senses—their structure—adapted to analyze, by the eye, the rays of light—by the ear, the vibrations of the atmospheric medium—by the nostril, the evolutions of evaporating substance—by the tongue, the sapid particles of food—by the surface of the body, hand, &c. the resisting substance of tangible bodies.—Physical phenomena of sensation, mere actions—man possesses the senses in a very inferior degree—brutes, probably, enjoy senses different, more numerous, and powerful than man—instance the Bee, Vulture, &c.

Soul--its essence--we mistake its operations for its being. (See the work on the Heart and Brain, Note, page 6.)—Not communicable as corporeal constitution to posterity—a superadded, peculiar, accountable, unalterable being, not divisible*, but the most diffusible stimulus. A thought occasionally kills or deranges the system in one instant, at other times saps the foundation of physical power, or lifts the system into health.—Stimulus of the soul, the cause of numerous human ailments.—Phenomena of physical operation of sensation, *i. e.* action.—Phenomena of intellectual sensation, *i. e.* cognizance—soul alone feels, thinks, elects, &c.

Although looking on the wayes, they are not seen--the soul is occupied elsewhere.

> "She sat upon the gallie's prow, She seem'd to mark the waves below, Nay, seem'd so fix'd, her look, her eye, To count them as they glided by, She saw them not! 'twas seeming all, Far other scenes her thoughts recall ; A sun-scorch'd desert, waste and bare; No waves, no breezes murmur there ! There saw she, where some careless hand, O'er a dead corpse had heap'd the sand, To hide it, till the jackals come To tear it from a scanty tomb. See ! what a woful look is giv'n, As she rais'd up her eyes to heav'n !" Scott's Novice of Clare.

Organs grow weary, alter, sleep, and die.-Waking-Sleeping-Dreaming-Soul is ever the same, never wearies, never alters, never sleeps, never dies-

^{*} In its essence, we shall see that in common sensation, the soul can devote her attention to many objects of sense, though not to more than one intellectual operation at the same moment.

Children may be futuitous but not mad—Definition of the nature of madness.— Futuity, Hydrophobia, &c.—the last peculiar to the dog, may be communicated by inoculation---not so human madness. Brutes never seem liable to futuity, or purely madness of intellect.

LECTURE XIV.

COMPARISON of Man and other animals, in a state of infancy.

Compared with the carnivorous, and helpless feathered tribes, which are produced with their eye-lids sealed up, and continue so for a few days. Man, the only animal born with open eye, yet void of understanding.—Compared with the Herbevirii, which are born with open eye—a power of following the dam possess their peculiar language, and a perfect understanding of ideas adapted to their safety.

The preceding notions applied to the purposes of the nursery.

Newly born babe-his heart, artories, veins, bones, bowels, brain, tongue, eye, and ear .- His soul-his propensities-his ideas-Best posture and treatment of the infantile periods-Demonstration of infantile bones which are liable to deformity-those which are not liable-Danger of paregoric and other medical applications-of gorging the stomach with milk-of dandling him-of keeping him too much awake-of a sitting posture-of frightening him-Deleterious effect of the noise and foolish prattling of the nurse--ablutions, warm and coldclothing-bed-chamber .- Education commences when the brain admits of impressions-commonly 3 months after birth-sometimes 6 weeks-the passions and appetites at this period-artifice of this period-every bad propensity to be checked in the bud .- The silly attention of parents to their own feelings, converts the innocent into a toy, and carves out serious labour, during the after moments of existence .- Example placed before the eye, when the ear listens ineffectually-habit roused into organization, stamp the future character-definition of organic habit-of intellectual habit* .- Physiognomy and madness, in their causations, often commence at this moment.-Anecdote proving this fact .-Connexion between the tongue, stomach, heart, arteries, veins, nerves, brain, and soul .- Children ought to feed themselves as early as possible-ought not to eat too much at a time .--- Minor virtues, morals, axioms, proverbs taught at the table .- Reading and speaking several languages may commence early, with equal ease as one language-method proposed, founded on the history of a child in London, who, with equal facility, lisped English, French, German, &c. at S years of age.

Importance of silence in the presence of children, respecting deep or unseasonable subjects.—Illustrated by examples—of children, and a lady who became afflicted with madness.—They listen and repeat to themselves, before they articulate—they are marvellously penetrating and logical in their manner of questions and catenations—silence of children in presence of seniors—the child

* The art and habit of reasoning.

who is ever chattering out of season, rarely answers in season—children ought to be checked in silly reveries of their own.—Employment of the children in the nursery—whatever is essential to them, to be made a reward, not a punishment—we are whipp'd to school, and scourged in it—we are driven to church. Make it their punishment to be kept back from these---make your smiles their reward, your frowns their punishment.

> "But he extremely differs from my sense, Who thinks the pow'r obtained by violence, Can ever prove more solid and secure, Than that which friendship's softer means procure."

Money ought to be the reward of merit only, and the means of cultivating benevolence toward others—anecdotes respecting the efficacy of this plan.—No timber horses, guns, and swords for boys, or wooden children for the girls—no silly toys, no gaming, fowling, angling, racing, &c.---Let those objects which are calculated to raise them into respectability, become the employment of even childhood.—The sciences and arts can be taught to children—This becomes the more necessary, as we go to school for 7 years to leave God, and study Homer's dreams of gods and goddesses, the madness of Ovid, and the taste of Virgil, &c.—Is it wonderful that posterity are fools *?—Pastimes, gardening, skipping the rope t, &c.

LECTURE XV.

FAREWELL DISCOURSE.

SEVENTH year.—Children now fall off, unless they have been satisfied, respecting their natural inquisitive propensity—children are always questioning us respecting matters of the highest importance.---Can parents answer them ?— Inquiry is the natural involuntary principle of human improvement and intellectual employment---the first passion that appears, the last to flag.--In the 7th year, the organs have acquired the half-way state of the morning of man and womanhood in temperate climates---until mid-life each 6th or7th year alter the or-

^{*} Kindness and credulity of children---they ought to be gradually introduced to a knowledge of the world.

⁺ Children may be easily introduced to an acquaintance with the sciences and the arts-as geometry, mechanics, natural philosophy-natural historybiography, drawing, &c .- Illustration of the modesty induced by the phenomena of natural philosophy, where every circumstance appears controdictory and yet are consistent with demonstrable laws .- Remarks on the depredations continually existing among the inhabitants of the ocean .- Deductions drawn from man living on animal food .--- Eternal snow crowns the summit of the Alps, though nearer the sun than the plain where nature smiles in foliage flowers, and fruitwere children thus reared, they would follow the plan proposed by the wise Spartan-" What," said a stranger, "should young men learn ?" "What they are to practice when they are mature," replied the sage.--I have shown that the minds of children are ever upon the alert upon subjects of the highest importance .-- Who made the sun? the world? what is God? &c. are their questions--when they have been left unanswered and untutored, they resort to imitation of the vulgars about them. The boys swear with John in the stable, and the girls - with Poll in the kitchen. Children never ought to visit the kitchen, or be familiar with low servants.

gans and ideas, if man is properly tutored.---See the Table of animal and intellectual classification, in the end of the Prospectus.--Aristotle philosophically advises, to aim at causing the body and mind like well managed horses to draw equal---Now, the vulgarity and superstituon of the nursery ought to be caricatured and worn off.--Plato seems to err, however, in advising the poets of his day, to paint vice in her hideous deformity, as well as virtue in her lovely attire.--Let us paint virtue chiefly.

> "Dare to be wise, and now begin---The man who has it in his pow'r, To practice piety, and protracts the hour, Waits like the clown, to see the brook run low, Which careless flows, and will for ever flow."

* Contrast between the Spartan and modern character of the sexes---the men were the shy party in Lacedemon's happy hours---our custom, where woman is the coy being, far more salutary---improvements of the age in which we live, compared with the last century.---Danger of novels and romances---the passions are misled, and misapplied, the understanding futuitous and sterile---nothing pleases but that which distracts.

> "Unless the mind be purged, what conflicts dire, And dangers, will not every thought inspire! The impious man, how many bitter cares, Incessant gall, and then, how many fears! What woful wretchedness from pride ensue, From sloth, lust, petulence, and from luxury too."

The Columbian Matron will arrest this---she will do better than rear a marbled tablet which must moulder to dust, and be driven to the ends of the earth on the bosom of the whirlwind---she will enrich the soul of her daughter with a relish for excellence, for taste, and for soberness.

> " Blest is the maid, and worthy to be blest, Whose soul entire by him she loves possest, Flies ev'ry vanity in fondness lost, And asks no pow'r but that of pleasing most,

* We possess no animal powers or intellectual propensities, but what are indispensible to delight and excellence.---Remarks on great minds---Solomon, David, Socrates---why they became dissipated.---We cease to be truly virtuous, to be great, to be good, or to be pious, when we fail in powers to err.---See Table of animal and intellectual economy, end of the Prospectus.---Ill timed cautions only excite inquiry respecting those ideas we wish to repress.---The stripling comes blameless to the path of transgression---'tis not attachment to err, but solicitude to know---and the charms of sensation, necessary to excite and ensure compliance, lead to excess---evil communications of hardened and obtuse seniors, out of the abundance of their vacuitous soul, corrupt the virgin excellence of youth.---Observations, drawn from female excellence, of the superiority of example without precept, compared with good precepts and bad example, or indulgence by popular opinion---reflections on the natural, though unfortunate fact, the superior power of popular opinion to God's laws.--This arises from the inattention of man to God, who is omnipresent, but man who is a dream, yet meets us with the eye in every corner--hence the philosophy of regular prayer, which places God ever before us, and we fear not what man can do--did not God remember that we are dust, where would we find consolation? Her's is the bliss in just return to prove, The honest warmth of undissembled love. For her, inconstant man might cease to range, And gratitude forbid desire to change."

The pious mother is entombed in the living sepulchre of her children. Few men of feeling lament their tutors or even their father, with the same pungency expressed for the unutterable loss of a wise and pious mother*.

> " Ah! what a life did I commence, Since that dire day when thou wast ta'en from hence, The muses at thy funeral I forsook, And of all joy my leave for ever took; My comfort lost, my self not whole, And but possessing half my soul ! One fatal day has seiz'd on both ! Dearer than life, am I so wretched then, Never to hear, or speak to thee again ! Nor see those lips, now frozen up by death---But I will love thee to my latest breath ."

The fifteenth year of human existence---Now toys are thrown away---an interesting gloom hangs on the lovely brow of female beauty---a new scene opens to the soul's view---new desires, hopes, and fears bewilder and entangle the affections---she ought to be instructed in the delusions of nature; diseases now, known only to human nature, spring from intellectual principles. There is no medium between heaven-born worth and insignificancy---The sexes ough not to have their dress suddenly changed, or be separated at this period---they ought to emulate each other in worth and sublime friendship.

The wise mother will not extinguish the passions of her daughter, but direct them---human reason directed by religion is sufficient to the task of wisdom; but we require the natural assistance of desire to lighten the burdens of human labour.---Bad books and exaggerated delineations of character, are equally ruinous, and ought to be equally degrading, as bad company. Remarks on the influence of popular opinion in lessening temptations where the fair are concerned, compared with the license society indulges in young men---this last a great crime. Do men not require the temperance and excellence of woman? Is that lovely being to look down on those exertions as an ordinary piece of conduct in their own case, which in men are applauded as a peculiar virtue? All true and exalted enjoyments are free from perturbation. The poet paints the soap-bubble of human folly:

> " Such is vain life ! An idle flight of days, A dark delusive scene of empty joy,

^{*} Fathers may provide affluence, but the pious mother alone, inspires the proper use of riches, of talents, and of wisdom.

A round of little cares and trifling passions, If not ennobled by the deeds of wisdom."

From three months after birth till the fifteenth year, forms the rudiment of salutary tuition.

The thirtieth year, the acme of human animal power, experience begins to alter the scene, for empty expectation we embrace realities.

> How void of reason are our hopes and fears ! What in the progress of our life appears So well design'd, so dex'trously begun, But, when we have our wish, we wish undone ?

The forty-fifth year nature gradually unweaves the web of human being. The tissue of organization, the heart and arteries, from conception to the utmost period of decriptitude carry on one regular scheme, directed by his hand who has numbered our hairs, and who permits not a sparrow to drop to the ground unheeded. This law arrests further increase of power after the forty-fifth year ---we therefore gradually fall off as animals. Remarks on optics---the hair ---teeth, &c. at this period of life.*

The 60th year man looks forward toward that world from whence none return—memory begins to fail except in the objects where early love or ambition engraved their impressions†.---This memory a proof of the soul's immutable character; for not one particle of the animal being is present in the man's system, at the 60th year, which composed him at the 20th ‡.

From the 60th to the 100th year, the animal system does not suffer every 7th year in the same proportion, as in the early periods of life-hence the soul en joys a more regular scene of intellectual improvement, freed from perturbations.---See Table.---See also work on the Brain, note, p. 6.

* Locke's notion of sensation and reflection as the basis of ideas, seems limited in its application---brutes possess more acute sensations than man---children more acute than grown people---why then do not brutes reflect better than children, and children than grown people? Or, rather, may we suppose that sensation leads more to the common purposes of animal being---that sensations rather distract the soul of man--- and in proper minds, from the 45th year, till old age, the soul towers in proportion as sensations become obtuse ?--- Can those animal powers be assigned as the cause of human intellect, which are common to, and superior in those creatures which exhibit animal power only ?-- The increased wisdom of maturity, therefore, does not seem to emanate from our former sensations.-- Am I right, that an original notion cannot be original if it has any basis but the soul, unconnected with our reading, and often even of sensation itself? When we contemplate God, we must put common notions aside.

+ This illustrated by fever, palsy, &c.

‡ Answering the whims and objections to these doctrines, form a distinct chain of considerations, which will be given, if possible, by Dr. R. before he leaves New-York.

Spitome and Table of Lectures on Matural Theology.

GENERAL DOCTRINES.—Three causes unite in the composition of Man, *i. e.* Life Organs, and Soul. Living and intellectual phenomena are excited by Stimuli.— Stimulating causes may be divided into three. 1st, Intellectual Stimulus, from presence of soul: 2dly, Simple Stimulants, as food, fluids, &c.: 3dly, Diffusible Stimulants, as medicines, strong liquors, spiceries, &c.

Three agents continue the same, i. e. 1st. Life, or the will of God : 2dly, Soul : 3dly, Stimulating Matter in general. One agent incessantly changes, i. e. Organs. Those intellectual operations dependent on organs, are denominated Sensation, and are subject to incessant change, from conception to decreptude. On the contrary, Social and Moral Ideas, being unconnected with organs, continue unchanged while the organs are found. Intemperance in thought, word, or deed, induce organic debility.—Hence solar and atmospheric medie, &c. which animate the temperate, become the scourge of the intemperate. The laws of Chrirt, therefore, are not arbitrary precepts, but are the gracious lessons, developed by the Creator who formed our bodies, and the Sariour who died to save our souls. They are the rules adapted to the promotiou of that soundness of body on which a sound mind is founded; while organs liable to change are connected with soul, which changes not. —See work on the Heart and Brain, Note, page 6. —The following Tabus points out the physical and intellectual causes which units in accessing the organs liable to change are connected with soul, which changes not.

The following TABLE points out the physical and intellectual causes which unite in promoting the various phenomena of human nature, as a series of progressive animal and intellectual being. Directing the attention in the horizontal column, we discover the phenomena of each stage of human existence, respecting the vascular, nervous, and cerebral phenomena, and those intellectual ideas flowing from religious or perverted modes of thought and conduct. Passing the eye from the top to the bottom of the columns, we have the series of stages of human existence, and other phenomena, from conception to old age. I have divided human life into six stages, composing 16 years in each stage—16 years being the era of puberty in temperate climates.

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FIRST. Infancy,Childhood and Youth.	ORGANIZATION. The most irritable state of organization, an agency bestowed on man, as the physical medium of early intellection : Hence every moment unimproved, is an irreparable loss. Brutes possess the same organs dif- ferently modified : Hence sensation seems a medium of common purposes.	SENSATION, In its material phenomena, constituted of mere action, depending on organization, the highest state of sensa- tionHigher in brutes than man : used by them as ani- mal agents—by man, as a- gents of the rudiments of extensive reflection.	ANIMAL IDEAS. Highest state of animal ideas—may in infancy of man be directed to minor virtues—are mutable, from the immutability of soul & mutability of the organs. Thus, in fever, the cold and warm paroxysms are varied states of the same organs taken notice of by the same unvarying laws.	SOCIAL IDEAS, &c. In the infant, have no existence : selfishness, fear, affection, and inquiry, the sole passions. The other passions evolve, by means of society : purely intellec- tual, not mutable. Hence the attachment to youthful objects.	MORAL AND RELIGI- OUS IDEAS, Have no existence : pure- ly intellectual, not muta- ble : have early basis, by mere sensation, the propen- sity of inquiry and memo- ry. Hence various modes of worship, &c.
SECOND. The 16th year.— Youth, Manhood, and Vigour.	The morning of youth, of manhood, and the mid- day of vigorous organiza- tion: mobility diminished. This is the termination of the boy or girl, and the commencement of the dawn of manhood and woman- hood; which is not com- pleted until the 32d year.	Less lively : romping crases : sensation diminish- ed. Hence soul is undis- tracted : attention and im- provement augment : things formerly valued now lose relish.	Less urgent, if properly tutored. About the 20th year organs are finished: the train of ideas becomes altered: the organs may as- sist intellectual energy, by symathy of virtuous ex- ample.	Become marked : friend- ships formed from similari- ty of sentiment : love a pas- sion in man, not an appe- tite. Brutes are strangers to love—they know lust only.	Rational love improves : rational and sublime notions of morals and religion : pas- sions are appropriated : ap- petites are regulated—oth- wise organic structure ex- cites organic bad habits, & debases the soul.
THIRD. The 32nd year	For a little moment, en- ergy seems to pause; but, notwithstanding, yields to the decays of nature.	Sensations cease to de- lude the virtuous : conti- nue to tantalize the per- verted.	Disappear in the virtu- ous, and domineer in the perverse. "Unless the mind be purg'd, &c." p.14.	High-toned friendship exalts the wise; the phan- tom of perverted connex- ions debases the fool.	Tribulations improve the wise : success exalts. These equally unbinge the prodi- gal.
FOURTH, The 48th year.— Decay becomes sensible,	Animal power languishes.	Sensations are dumb in the virtuous—tyrannize in the son of riot. Ch-rt-rs, Duke of Q	Absence of intellectual excellence—resorts to sense —after sense, the whole man is unhinged in the fool.	The mind must be em- ployed : the fool increases folly in the company of fools —the wise become wiser.	Our hairs, eyes, teeth, &c. warn the wise: they de- cay, unheeded, by the son of intemperance.
FIFTH. The 64th Year.— Decay becomes au- dible,	The organization rapid- ly declines.	Sensations have rung out their knell in the wise: they still make a fool of folly. Diseased organs ex- cite a vacant soul.	No existence in the wise man. The vacant soul lives over that madness of which nature is incapable.	The wise see their friends dropping on every side: they retire within them- selves. The fool seeks joy in vain.	Piety augments in the wise : the unwise increase in folly,
SIXTH. The 80th year.	The grasshopper becomes a burden.	Lost. Barzillai, &c.	Lost.	Lost.	Increases in the wise : in the fool, no hairs, no teeth no eyes, no wisdom, no comfort.
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