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PHRENOLOGICAL JOURNAL EXTRA.

FOWLER, (1842)
FOWLER ON MEMORY:

OR,

PHRENOLOGY

APPLIED TO THE

CULTIVATION OF MEMORY;

THE

Intellectual Education of Children,

AND THE

STRENGTHENING AND EXPANDING

OF THE

INTELLECTUAL POWERS,

BY O. S. FOWLER,

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Editor of the American Phrenological Journal; Author of "Phrenology Proved, Illustrated, and Applied;" "Phrenology and Physiology applied to Matrimony; do, to Temperance; do, to Education and Self-Improvement," &c. &c. &c. &c.



INTELLECTUAL *enjoyment greatly surpasses* PHYSICAL *pleasure.*

SECOND EDITION ENLARGED AND IMPROVED.

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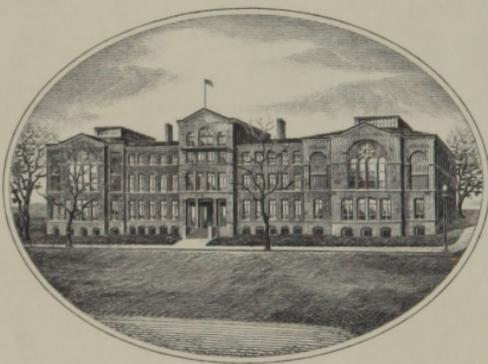
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PREFACE.

No subject has ever interested the mind of the Author, more than the fact that the phrenological organs are capable of being *enlarged*, together with the MEANS OF EFFECTING that enlargement. Improvements in agriculture, the arts, machinery, &c., &c., are valuable in their spheres, yet the means of *cultivating and improving the MIND OF MAN*, is *infinitely more* important and useful—as much more so as *mind* is superior to *matter*; and as our susceptibility of enjoying or suffering through the medium of the *intellect and feelings*, is greater than our merely *physical* pleasures. Books have been written and efforts made, to educate the intellect and cultivate the feelings; yet *none* of them have been founded upon the *true* nature of the mind. But, Phrenology analyzes every element of the intellect, and every fountain of the soul. It places the finger of science upon every faculty of man, and at the same time, tells us *how to improve* them all. It tells us WHEREIN goodness and perfection of intellect and feeling consist, at the same time that it points out to every one his DEPARTURES from its standard of perfection, and the MEANS OF REMEDYING them. It tells us the *relative size* of each organ, and thereby the relative power and energy of each faculty, and this shows us what are *too strong*, and what *too feeble*. It *also* shows us how to STRENGTHEN those that are too feeble, and how to reduce the action of those that are too powerful. That is, it tells us *how to improve the immortal MIND*—how to *perfect the character*—how to *remedy defects*, and *reduce excesses*!

This work presents the FIRST systematic application of Phrenology to a result so desirable, so glorious; and also shows how to *increase the size*, and *augment the power*, of the *intellectual* faculties; being that *portion* of the Author's work on the "Application of Phrenology to Education and Self-improvement," which relates to the CULTIVATION OF THE MEMORY, the INTELLECTUAL education of children, and the STRENGTHENING and EXPANDING of the *intellect*. It takes up each intellectual organ separately, shows its precise and specific function, and then how to bring it into action, so as to enlarge and invigorate it. As affording a knowledge of Phrenology, especially as regards the *nature and function* of the *intellectual* faculties, it will be found equal to any, if not superior to all, other works on Phrenology; but, as affording directions for *cultivating* and *strengthening* them—a department the most interesting and instructive that *can* be presented—it stands unequalled and alone; and its perusal and practice will repay the reader a thousand fold.

It dwells, with particular stress, upon the *cultivation of the intellectual* faculties of CHILDREN AND YOUTH. Hence, *EVERY PARENT AND TEACHER* should peruse it, and conduct the training of the infant mind upon the principles it contains. It *exposes* many errors which lie at the very basis of our com-

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mon school system, and points out a far more excellent way; besides furnishing hints to the young in regard to SELF EDUCATION, which, if put in practice, will exceed in value all the mines of Mexico, and all the gold of Opher. This is evinced, not only by the rapid sale of the first edition, but still more by the many testimonials of those who have read that edition—some asserting, that practising its principles for a single month, have improved their memories fifty per cent; and others, one hundred per cent; while others still, rate this improvement even higher yet. One gentleman said that its perusal eight years ago, would have saved him from physical and mental ruin; whereas now, both mind and body were nearly destroyed. It will work wonders for ALL who practice upon its directions—and they are simple and easy of trial.

But, to those who are pursuing a *liberal education*—to the young men of our high-schools, Academies, and Colleges, who expect to obtain their subsistence, or to rise to stations of honor or profit, by the exercise of their intellectual faculties, as well as to all public and professional men,—it will be found to exceed all computation—not because of the ability of its Author, but because of the INTRINSIC merit of its SUBJECT MATTER.

The other portion of this application of Phrenology, namely, that which relates to the cultivation, discipline, improvement, and proper direction of the feelings and sentiments, will be found certainly not less interesting or important than this; and if the perusal of this isolated portion of that work, affords pleasure or profit, the *whole* of that work will doubtless afford still greater, and at the same time, shows that the practical utility of Phenology, or the benefits derived from its study and applications, are infinitely greater than those derived from the study and practice of any other art or science whatever.

The subjects discussed previous to this, in that work of which this forms a part, are, “Physical Education, or the laws of Health,” showing the influences of the body upon the mind, the advantages of health, and the means of preserving and regaining it, especially in children. “Precocity—its causes and evils.” “The feeding of children.” “The Temperaments—their balance, the great condition of health, long life, and enjoyment. “Means of preserving and regaining this balance.” “Necessity of *exercise*.” “Means of increasing and diminishing mental action.” “Causes and remedy of nervous affections.” “The order of nature as regards the development of the temperaments.” “Balance of faculties indispensable to perfection and enjoyment.” “Self-knowledge the first step towards obtaining this knowledge—means of obtaining it.” “Facts showing that the organs can be enlarged by the exercise of their faculties, and diminished by reducing that action.” Then follows that *application* of these principles to the cultivation of the intellectual organs, which constitutes the body of this work.

O. S. FOWLER,

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PHRENOLOGY

Applied to Memory and Education.

The means of improving the memory and strengthening the intellect, and also the best method of conducting the intellectual education of children and youth, are subjects of vast importance to every member of the human family, but *especially* to PARENTS and the YOUNG. To descant upon the value or utility of memory, would be superfluous. I appeal to you who are rich, whether you would not gladly give your *all*, (the *necessaries* of life alone excepted,) for a clear and retentive memory of all you have ever seen, or heard, or known. What would not lawyers and physicians give, to be able, without notes, to recall, clearly and in order, every point of their evidence, every fact in their practice, every point in the authors they have read? Similar remarks apply to men of business, to whom a retentive memory is, if possible, still more serviceable. How often has the reader felt mortified in the extreme, and angry with himself, because he has forgotten something he intended to say or do! How great the consequent inconvenience, and delay, and even loss, which a good memory would have avoided! How much more powerful and effective that speaker who can dispense with notes, yet say all he wishes; and, by the aid of a clear and retentive memory, bring to mind thoughts and arrangements previously prepared! In short, is there any occupation in life in which nearly every kind of memory is not *most useful*? In many, it is *indispensable*. I ask parents whether transmitting to your children vigorous intellects and retentive memories, is not one of the richest legacies you *can* leave them? and whether a poor memory, one that is treacherous to its trust, is not a great misfortune?

Again: To be productive of pleasure, every action of our lives must be governed by *intellect*, (in conjunction with the moral faculties,) which is only another name for experience and correct judgement. The man of feeling and impulse, is a man of sorrow and misfortune. The propensities are blind, and blindly seek gratification; and hence require intellect to direct them into the paths of virtue and happiness. And, though the assistance of the moral faculties is also indispensable, yet without intellect, even *they* are "blind leaders of the blind;" producing all the anomalies and abominations of paganism. Aided by intellect, men accomplish much more, and that far better, than without it; doing with their heads what unintellectual men do with their hands.

And then again; how rich are the treasures of knowledge! How delightful the study of nature! "*Knowledge is power.*" Man is so constituted that, to study the laws and phenomena of nature—to witness chemical, philosophical, and other experiments—to explore the bowels of the earth, and examine the beauties, the curiosities and the wonders of its surface—to learn lessons of infinite power and wisdom as taught by astronomy—but, more especially, to study *living, animated* nature—to observe its adaptations and contrivances—in short, to study *nature* in all her beauty, variety, and perfection, particularly with reference to the wisdom and goodness of that great Being who created all things, constitutes a source of the highest possible gratification of which the human mind is susceptible.

The mind of man is capable of IMPROVEMENT, and that to a degree truly astonishing, far surpassing what is generally supposed. The *importance* of education and intellectual attainments, is admitted by *all*, yet few know *how*, to conduct the former, or attain the latter. In order to *educate* or *discipline* the mind, its *nature, primary powers, and laws of action* must be understood. These, few parents or teachers even *pretend* to understand; and hence, millions of money are annually expended, and thousands of teachers constantly employed, almost in vain. As well attempt to navigate the ocean without the compass, survey the land without the needle, study astronomy without the telescope, or try to do any thing else with-

out knowing what requires to be done, or how to do it, as undertake to educate the young or discipline one's own mind, without *first* understanding the *primary faculties* of the mind, as well as their *laws of action*. To be successful, education and intellectual culture *MUST* be *adapted to the mental faculties*, and also conducted in harmony with the laws of mind! These, Phrenology explains most beautifully and clearly; thereby furnishing the only correct guide to parents and teachers. The *objects* of this work, therefore, will be,

1. TO ANALYZE THE INTELLECTUAL FACULTIES; and
2. TO SHOW HOW TO ENLARGE AND STRENGTHEN THEM.

That is, to show how to *improve every kind of memory*; how to conduct the *intellectual education of children and youth*; and, how to *strengthen and expand the intellect*; as well as how to *acquire knowledge*—objects, both individually and collectively, of the *highest possible importance*, especially to *parents, teachers, the young*, and those who are studying a *profession*.

It should here be remembered that, according to Phrenology, *every organ can be enlarged*, and the power and activity of every faculty, *greatly increased by exercise*. As the exercise of any part of the body, such as the arm, foot, &c., causes the blood to flow more freely to the exercised part, so the exercise of any *phrenological organ*, causes the blood to flow to *that organ* in proportion as it is exercised, and this blood contains matter for enlarging these parts, which it does in proportion to its abundance. This important point is fully explained and proved in my work on "*Phrenology and Physiology applied to Education and Self-Improvement*."*

I contemplate no fact or principle in nature with more intense delight, and glory in propagating none, more than this doctrine of the enlargement of the organs. It shows how to *improve the immortal mind*; how to *educate our race*; how to diminish human suffering, and promote man's highest happiness. It holds out, in the language of *demonstration*, to one and all, a sovereign remedy, a *panacea*, for intellectual

* This work embraces the portion of that work which is devoted to the cultivation of the memory, and the *intellectual education of children*. The reader will doubtless find the whole of that work worthy of a careful perusal. At least, this will serve as a sample of that.

weakness and moral maladies. Is your memory short or treacherous, it shows you how to strengthen it. If any of your passions predominate, it teaches you how to reduce their power and activity; or, if any faculty be weak or inactive, it shows how to cultivate and invigorate it.

But it is to *parents* that it holds out by far the *brightest* star of promise. You *love* your children as you love your own souls, and are even more anxious to improve *them*, than yourselves; because you are too apt to regard *your* season for improvement as past. You are ever ready to expend your time and your money upon their intellectual or moral education; but, unfortunately, hitherto you have only groped your way in the dim twilight, while this principle opens upon you the full orb of reason and mental science—the only correct guides to the results you seek. But let it be remembered, that so precious a jewel as mental and moral improvement, can neither be *purchased*, nor obtained by *proxy*, nor inherited, except in its rudiments, but must be *cultivated*, and that by every one *for himself*. Parents and teachers may indeed place the proper *means* or mental *stimulants* before the minds of the young, just as they may place nourishing food before them, but can no more *exercise* the minds of children for them, than they can eat, or sleep, or breathe, or die for them.

Reader, do you desire to know *how* this can be effected? Do you wish this mine of self-improvement opened, so that you may begin now to lay up its richest treasures? Then lend a listening ear. The means of mental culture are simple, easily applied, and within the reach of *all*; and, they are certain and powerful. They consist simply in EXERCISING the organs you wish to improve; and, in *not* exercising those you wish to restrain. This, every one must do *for himself*, and do it, not “here a little and there a little,” but HABITUALLY; and, the richest harvests mortals *can* reap, will crown your labors—harvests infinitely richer than all the mines of the world; because harvests of *moral* pleasure and *intellectual* attainments; a reward as infinitely above all earthly possessions, as mind is superior to matter.

Will you sow, that you may reap this harvest? or, will you fold your arms, and allow your brain, at least in part, to die; yes, *to die* while you live, merely from inaction? Does not

the glorious truth, just presented, inspire your hope, and nerve your determination to carry forward your intellectual and moral attainments as far in the scale of improvement as nature will allow? Already you eagerly ask, "*How* can we exercise our *faculties*, so as to enlarge the *organs*? *how* bring them into vigorous and continuous exercise? *how* discipline the intellect, and call out the moral feelings of children and youth? Listen again, to

THE MEANS OF EXERCISING THE FACULTIES.

Every faculty has its own proper *aliment* or *stimulant*, the presentation of which *naturally* induces spontaneous action. Thus, Alimentiveness is stimulated, not by gold or diamonds, but by *food*, its *natural* exciter. Hence, the sight of food, or seeing others eat, or even the taste or smell of food, excites hunger; whereas, in the absence of these natural stimulants, Alimentiveness would remain quiescent. Acquisitiveness is stimulated to action by property, or the *possession* of things, &c., but not by food, or distress, or danger. Causality is excited to action by bringing causes within its reach. To excite, and thereby strengthen, this faculty, *think, reason*, inquire into the *causes* of things, and trace out the relations between causes and effects—that is, bring this faculty into *action* upon the causes, principles, and laws of things. Combative-ness is excited by *opposition*, not by beef-steak, or money, or facts. Approbativeness is excited by praise or reproach; Benevolence, by suffering; Reverence, by thoughts of God; Conscientiousness, by *right* and *wrong*; Ideality, by the beautiful, exquisite, or perfect; Mirthfulness, by the laughable or ridiculous; Locality, by travelling; Cautiousness, by danger, &c.

But mark: one faculty cannot perform the function of any other, or supply its place. Though a person having Acquisitiveness small, may make money to leave his children rich, or to show off, or to aid the poor, or to furnish the means of acquiring knowledge; yet, these motives neither excite nor enlarge Acquisitiveness; for, the first is an exercise of Parental Love; the second, of Approbativeness; the third, of Benevolence; the fourth, of Intellect, &c. To exercise Acquisitiveness, therefore, he must make and love money *to possess and hoard*—must love property *to lay up*, and for *its own sake*.

You may eat a meal, not because you *relish* it, but because a certain *hour* has come—that is, from *Time*, not Appetite. Fighting desperately from motives of *honor*, and not from *love* of fighting, is no more an exercise of Combativeness or Destructiveness, than the apparent fondness, in company, of a husband and wife who cordially hate each other, is an exercise of pure, connubial love.

This illustration shows, first, that the *precise nature*, or *legitimate function* of every faculty, must be known, as well as its *natural* aliment or stimulant; and, secondly, that this stimulant must be *placed before* the faculty so as to *excite* it to *action* in order thereby to *enlarge* its organ.

The *first* thing to be done, then, is to obtain a knowledge of your own or children's developments, especially of the intellectual organs, in order that you may know what faculties are too weak, (there is very little danger that any of them will ever become *too large*,) so that you may know to which to apply the stimulous. This knowledge may be gained, either by studying Phrenology yourself, or by applying to a skillful, practical Phrenologist; but the *knowledge itself* is *indispensable*.

You should then form a distinct idea of WHAT CONSTITUTES a *good* intellectual head, in order that you may see wherein the intellectual developments of yourself or children, (whichever you wish to improve,) depart from this standard of excellence. This standard is an EQUAL development of all the intellectual organs—balance, and the *harmonious action* of these faculties. When the forehead is even, when all the intellectual organs are large, the judgment is good in regard to all subjects; but deficiency in any of them, impairs the judgment in regard to the functions of those that are feeble. Thus, let a picture be hung up for inspection, and if the beholder have Size large, and all the other intellectuals small, though he will judge accurately of its *proportions*, and derive pleasure from admiring them, yet all its other qualities will be unseen, unadmired, and his pleasure proportionably restricted. But if he have Form also large, he will observe and admire its *likeness*, as well as its proportions, and thus be *doubly* delighted; and if large Color be added, he will also be delighted with the beauty of its colors, and the richness and delicacy of its

tints and shades, which will triple his pleasure. Add large Ideality, and he will discover what, without it, he would not have seen, the beauty, richness, and those other qualities of the picture which appeal to this faculty.

One having large Eventuality only, will learn and remember *events* alone, including history, news, &c: with only Locality large, he will learn *geography*, and recollect places, but nothing else; with Form large, the *shape* of things; with Calculation alone large, he will excel in *mental* arithmetic, but be poor in every thing else; with Causality prominent, he will *think* much, and investigate *first principles*, yet be poor in other things, &c.

If one's perceptive powers, which give the various kinds of memory and the ability to collect and retain knowledge, greatly predominate over his reflectives, though he may be very apt as a scholar and a great talker, yet he will be superficial, lack thought, judgment, and contrivance, and be incapable of ascending from facts to first principles; and, on the other hand, if his perpectives be small, but reflectives predominant, he will have a wretched memory; be unable to command his knowledge, or bring his talents to bear upon practical matters, be given merely to speculative scholastic, abstract, therefore-and-wherefore, metaphysical *theorizing*, which is valueless; and, though he may know *how* to reason, yet his knowledge of facts will be too limited to furnish data sufficient to form correct inductions. But where both are *equally* developed, the former will collect abundant materials, which the latter will work up into correct arguments and sound conclusions. Both equally developed, give a general talent, constitute a well-balanced and truly philosophical mind, and give the true Baconian, inductive method of studying nature, by ascending from *facts* up to first *principles*—the only possible means of arriving at *truth*. This development is not only perfectly adapted to the laws of nature, and harmonizes with the constitution of the human mind, but it also gives what is called sound, common sense, correct judgment, and enlarged views of subjects; while its absence causes the intellectual lameness, warped views, and fallacious and diversified opinions, existing among mankind.

Those having large Language with small Reasoning Organs, will talk much but say little ; and have words in great abundance and variety, but no *ideas* ; and therefore experience and communicate but little pleasure : for, who wishes to listen to senseless prattle ? On the other hand, those having Language small, with the Reasoning Organs large, will have excellent ideas, and much valuable matter to communicate, yet be barren of expression ; their rich mines of thought remaining *buried* for want of language, and the pleasure and profit of listening to them, being proportionably abridged. But those having Language and the Reflective organs *both* large, will experience *double* pleasure, first in thinking ; secondly in *communicating* their glowing thoughts in rich, expressive language ; besides thereby administering much pleasure and profit to their delighted listeners.

The *third* thing to be done, is to obtain a knowledge of the function of every faculty, that we may know how to excite it. To impart this knowledge, I shall briefly *analyze* each faculty ; and, in order to do this in the shortest and most effectual method possible, I shall point out the *adaptation* of each to its counterpart in nature, or to the end it attains in the economy of man. Thus, Parental Love is adapted to the *infantile* condition of man ; Causality, to the arrangement or laws of cause and effect ; Cautiousness, to our being in a world of danger ; Benevolence, to the sufferings of mankind ; Appetite, to the requirement and arrangement of digestion ; Constructiveness, to our need of clothes, houses, and things that are *made*, &c. I know of no short-hand method of impressing indelibly, the nature and function of the faculties, at all to be compared to this, united with *definitions* instead of descriptions. Remembering this adaptation of a faculty to its object, is comparatively easy, and this reveals its true function.

The reader is now prepared to enter upon the *analysis of the intellectual faculties*, which will point out the various *kinds* of memory ; and, then upon the means of strengthening and improving the memory, as well as securing mental discipline.

The *organs* of the intellectual faculties, occupy the *forehead*. The rule for ascertaining the amount of brain devoted to the intellectual organs, is this : Erect a perpendicular line from the most prominent part of the zygomatic arch—the bone

which commences just in front of the ears, and runs towards the eye—and the amount of brain *forward* of that line, indicates the size of the intellectual lobe. This method of measuring the intellectual lobe, is far better than that of measuring from the *ears* forward, which is very imperfect, first, because it measnres a part of the propensities; and secondly, because the organs are sometimes short and broad, and sometimes slim, or long in proportion to their breadth.

These faculties are usually divided into two classes; yet I am satisfied that making a third class will still farther facilitate their study. The first developed of these, as well as the most important, are the organs in the middle portion of the forehead, embracing Individualy, Eventuality, and Comparison, which might be called the *knowing* organs, being the first, if not the main, channels through which a knowledge of things, especially of the phenomena and laws of nature, enters the mind.

Nearly all children will be found to have a great fulness, if not marked prominence, commencing above the nose, and extending upward through the middle of the forehead, to its upper part; and, in accordance with this development, they have an insatiable curiosity to see, *see, SEE* everything; to know all about whatever is passing; and to ask *what* is this, and *what* is that; together with a remarkably retentive memory of stories, *facts*, and what they have seen, heard, or read. Besides being a proof of the truth of Phrenology, this shows *how to educate children*; namely, by *showing them things*, rather than *books*—by exhibiting *facts*, and *explaining the operations and phenomena of nature*.

Secondly. The perceptive organs, which give a talent for judging of *matter*, and effecting *physical* ends. Combined with Acquisitiveness, they give a talent for deciding upon the value of property, land, live-stock, goods, &c., and upon the shortest, surest road to wealth. Such men as Astor, Girard, &c., have a heavy brow, a great projection of the eyebrows over the eyes, or a deep, sunken eye, which indicate the development of these faculties. Combined with Constructiveness, this development gives a talent for judging correctly of machines, inventions, mechanical works, architecture, contracts, &c., &c., together with a talent for discovering and applying

mechanical principles in new ways, or to new ends. Great inventors, such as Whitney, Fulton, Winans, &c., have this development, and so do superior engineers, contractors, &c. Combined with the mental Temperament, it delights in the study of the *natural sciences*, as distinguished from literature, (which is imparted by the organs in the *middle* line of the forehead above the nose, or those already described,) and constitutes a truly *scientific* mind, and is always large in such men as Cuvier, Buffon, Eaton, Day, Hitchcock, Silliman, Herschel, &c.

The only remaining form of forehead is, that in which the *reflective* faculties predominate. This may be known by a high and wide forehead; one that is perpendicular, and has a square appearance at the upper part. This indicates a thinking, reasoning cast of mind, and a desire to look into the *causes* of things; a talent for adapting means to ends; for contriving and creating resources, inventing, and effecting much with scanty means. What is commonly known as good *judgment*, depends upon this organization. It gives depth and strength of intellect, and the higher kind of mind, yet not brilliancy, or what is called smartness, which depend upon the form of the forehead first described. This class of faculties is less likely to be called out than most others, and hence, men having strong minds and great originality and penetration, often pass through life like a lion in a cage, without an opportunity of showing their intellectual strength. Such are great only on great occasions, yet, if placed in situations calculated to call out their powers, they will be found adequate to any emergency, and the natural leaders of those whose perceptive faculties prevail. Reasoning intellect oversees and directs, while perceptive intellect executes.

A hollow, or depression, in the centre of the forehead, indicates a defective memory of details and smaller matters; while a depression extending through the *middle* of the forehead from side to side, indicates a treacherous memory of details, names, dates, incidents, every-day occurrences, &c.

We will now analyze the *separate organs*, and show *how to excite each* of them.

INDIVIDUALITY.

OBSERVATION of things : curiosity to SEE and EXAMINE objects : noticing things in their isolated capacity, and as independent existences : cognizance of the identity, personality, or individuality of bodies : power and desire of observation.

ADAPTATION.—On looking at any thing, as a book or a pen, the first impression made upon us is that it is a *thing*. It is its *personality*, its *individuality*, its *thingness* that first enters the mind. Before we can examine its uses or properties, we must know that it is a *something*. The material world is parceled out into single objects without number, each of which has a separate existence of its own. Thus, who can count the sands upon the sea-shore, or the leaves or twigs of the forest, or the particles of matter? And each, in its very nature, has a separate existence of its own. To this *necessary* property of matter, therefore, this faculty is adapted.

This is the *looking* faculty. Its one distinctive function is to *see things*. It asks, *what* is this, and *what* is that. It creates that intellectual curiosity, as well as that instinctive desire to examine and discover things which has resulted in most of the discoveries of modern science, improvements in agriculture, the arts, science, &c., and discovered Phrenology. It is that door of entrance through which a knowledge of things is received into the mind, and takes cognizance of what is called the "*divisibility* of matter," or that quality which allows a body to be divided and sub-divided *ad infinitum*, while each portion cut off still remains a distinct thing.

As this faculty is the door through which a knowledge of external objects enters the mind, so its organ is one of the first developed in infants. The babe of a few hours, or at least days old, begins to *look* at surrounding objects; and to notice, gaze, and stare. Indeed, this curiosity to *see* and *handle* every thing, to pull things apart so as to see what is inside of them, &c., seems to be one of the *strongest* intellectual desires and functions of childhood and youth, as well as the great medium of receiving information. This *looking* tendency of children is too strong, too unequivocal to be mistaken, and the *result* to which it brings us, is equally conclusive and unavoidable. It says, and in language too loud, too plain, to remain unheard or be misconstrued—the language of *nature*—that children

should be taught by OBSERVATION *first and mainly*, from books, afterwards and secondarily. Is not *seeing* a thing infinitely better than any *description* of it that can be given, especially on *paper*? This insatiable *curiosity* of children, and their extraordinary development of Individuality, together with the incontestible *fact* that what they *see* is far more vividly and indelibly impressed on their minds than what they *read*, expose the fallacy of the almost universal opinion that children must learn to *read and spell first*, as almost the *only* medium of acquiring knowledge. It also shows that the general custom of consuming *five or more years* of the most valuable portion of life in learning to read and spell, is unnatural and injurious. The fact is that education is now *begun at the wrong end*, and conducted upon erroneous principles throughout. In educating children, should we not follow the order in which their *organs* are developed? Every other course is at war with their *natures*, and therefore preposterous. They learn by *means of their organs*, and therefore they should be taught nothing appertaining to any organ *till it is developed*. But as soon as any intellectual organ begins to be developed, its *cultivation* should be commenced. Individuality is one of the first of the intellectual organs developed, as well as one of the most prominent in childhood and youth, and therefore education should be *begun and continued by showing them things*, and how to do things. Shall we require them to study subjects which they have not yet the power to comprehend? As well set the blind to selecting colors, or the deaf to learning music.

This error of teaching children from books instead of observation, is almost fatal to the exercise of intellect, and of course to the development of both the intellectual faculties and their organs. Reading is arbitrary, and requires a vigorous and protracted exercise of the intellect; whereas observation is natural, as much so as breathing or sleeping. Learning to read is irksome and therefore repulsive, but observation is delightful and attractive, and thereby stimulates the mind to a far more vigorous action than books which are disagreeable have the power to do; for, all know with how much greater energy the mind grasps and masters what it likes than what it dislikes. Learning to read does not *interest* children, and

therefore does not call their intellectual organs into *action*, and therefore weakens instead of strengthening or enlarging them; while observation, having things shown and *explained* to them, delights them beyond measure, which calls their intellectual *organs* into exercise, and this enlarges them, and facilitates their action, as well as disciplines and invigorates the mind.

In the light of this principle, no wonder mankind are so ignorant and every way so unintellectual. No wonder they flock by thousands to see monkey shows, circus-exhibitions, and every tom-foolery and humbug that may be started, yet take but little interest in purely *scientific* or intellectual matters. True, they flock in crowds to hear an eloquent speaker, yet it is because he rouses their *feelings*, but how few go to hear close *reasoners*, or read sound philosophical productions. No wonder that mankind bestow most of their time and labor upon the gratification of their feelings and passions, and that even their *religious* belief and practice are mainly a matter of education or feeling, and little of intellect.

This lamentable deficiency of intellect is certainly not *constitutional*. It is not the fault of man's *nature*; for, as already seen, Phrenology lays down the doctrine as fundamental and universal, that *intellect* should direct and govern all our feelings; and what nature *requires* she *provides*. She requires sufficient intellect to guide the feelings and moral sentiments, and accordingly, nearly *all* children have superior intellectual developments—far better, in proportion, than adults. How much oftener do we see fine foreheads on children than on grown persons? But *why* this relative decrease of those organs designed and adapted by nature to guide and sway man? What *causes* this relative decrease of the intellectual organs in adults? That which causes *colored* children to have better heads than colored adults, and colored people at the north than those at the south; namely, because nature does more for them than education *perfects*—because they become weak from mere *inaction*; and this is because their studies are not adapted to their faculties—because *books* are made to *precede* and *supersede* *observation* and *facts*, and the consequent *want of interest in their studies*. Want of interest in their studies is the fatal secret of our intellectual inferiority.

The inability of children to comprehend book-studies, together with their utter want of adaptation to the order in which the faculties are developed in children, is the primary, procuring cause of all.

I know, indeed, that I am advocating a bold innovation; and sapping, or rather undermining the very foundation of modern education; that I am demolishing, at a single stroke, an idol to which parents cling as they do to their children themselves, and on whose altar millions are annually sacrificed in body, and almost ruined in mind—but I cannot help it; for, my data is *Phrenology*, and my inferences are conclusive. From the universal fact that Individuality is the first and most prominently developed intellectual organ of children, there is no appeal; and, from the inference that, *therefore*, this organ should be brought into habitual action in them; that to *show and explain things* to them should even be *the* leading object of early education, is direct and unequivocal. That teaching them to read and spell, exercises their observing powers but *little*, or at least not to any extent worth naming, is self-evident. It even absolutely *prevents* observation, instead of promoting it. What is there within the walls of a school-house for children to see? Absolutely nothing but an occasional prank of some mischievous scholar, at which, if they see, they naturally laugh, and for this they get chastised or boxed over the ears, accompanied with a “There, now, see that you keep your eyes on your book.” As well chastise them for breathing, or for being hungry! Shut out from the view of objects at school, and mostly confined within doors while at home, no wonder that they lose their intellectual curiosity, and find their minds enfeebled. Their arms, or feet, or any other physical organ, if laid up in a sling, or prevented from exercise, would also become enfeebled. At three years old, just when they require all the physical energies of their yet delicate nature for growth, they must be confined in a school house; their growth thereby stunted; and fatal disease often engendered, and all to *spoil their intellects*. True, parents *mean* it for the best, but that no more obviates the evil consequences, than giving them arsenic, with the intention of benefitting them, would prevent its killing them.

But this bold, and at first apparently revolting position, is

still farther established by the method by which the human mind arrives at all correct conclusions. Reasoning alone, without its being founded upon *observation*, cannot teach any thing. Would *reason alone* ever have discovered, or can it even *perfect* Phrenology? Can reason teach us, in the first instance, that the function of a muscle is motion, or of a nerve, sensation; that the eye was made to see; that heat can be obtained from trees? that water can quench thirst, and food satiate hunger? that a stone thrown into the air will fall again to the earth? Observation must always *precede* reasoning. After we have *seen* thousands of stones that were thrown into the air return to the earth; seen food satiate hunger, and water quench thirst, each, thousands of times, &c., we may *then* begin to reason that *other* stones thrown into the air will also fall to the earth, that food in other cases will satisfy hunger, and water allay thirst, &c. The *inductive* method of studying nature, namely, by *observing facts*, and ascending through *analogous* facts up to the laws that govern them, is the *only* way to arrive at correct conclusions—the only safe method of studying any science or operation of nature, Phrenology included, or of ascertaining any natural truth.

Now, the minds of children are only the minds of adults in embryo. The former are compelled, by an unbending law of mind, to gain all their knowledge by the same process by which the latter perfect theirs—by *observation*, followed by reason. Then let children be *taught* this lesson of induction as their *first* lesson, their main lesson during childhood. This lesson never falsifies; books and papers sometimes do; and thereby bias and warp their judgment, implant errors, and blind reason.

I now appeal whether I am not on *philosophical*, as well as phrenological ground—whether I am not planted on a *law of mind*, and whether education should not be made to conform to this law. Is not this point *self-evident*? and should not education be at once *remodeled* in harmony with it? I doubt whether fifty years will pass, if twenty, before this fundamental change will be effected. I even expect to live to see it, even though the good (?) old way is so thoroughly riveted upon the affections of parents. But let every reader ask himself what *good* his books did him while a child? Let him

look around, and he will doubtless find, what we have been astonished to observe, that many men having the strongest minds as well as memories, and the best business talents, do not know how to read or write. Let him ask which is preferable, book-learning, or common sense? a college learned sapling, or a strong-minded, common sense citizen who cannot read? and train his children accordingly. Not that reading is not good, but that common sense is far better. Not that I would have reading, writing, and spelling neglected, but I would make them *secondary*, both as to time, and as to intrinsic importance.

The course pointed out by Phrenology, then, is simply this. Even before your child is three months old, place a variety of *objects* before it; take it into rooms and places which it has not yet seen, and hold it often to the window to look abroad upon nature, and see things that may be passing, &c. At six months, take hold of the things shown it, and call them by name, as plate, bowl, knife, fork, spoon, table, bed, &c. At one and two years old, take it out of doors much, (which will strengthen its body as well as afford increased facilities for seeing things,) show it flowers, trees, leaves, fruit, animals, &c., in their ever-varying genera and species; and when it asks you "Pa, *what* is this?" "Ma, *what* is that?" instead of chiding it with an "Oh, dear, you pother me to death with your everlasting questions, do hush up," take pains to explain all, and even to excite curiosity to know more. Take your children daily into your fields, or gardens, or shops, and while you are procuring them the means of *physical* support and comfort, store their *minds* with useful knowledge. Even if they hinder you, rejoice; remembering that you are developing their immortal minds—a matter of *infinitely* greater importance than adorning their *persons*, or leaving them rich.

As they become three and four years old, take them to the Museum: show them all the fish, birds, animals, &c. Tell them all that is known about the habits, actions, and condition of each, (not all in a day, or in a year,) and provide them with books on natural history, with explanatory cuts, (what, for children to read before they have learned their letters? no, but) so that, as they clamber upon your lap, and fold their filial arms around your willing neck, you may show them

these pictures, and read what is said of the habits, dispositions, modes of life, &c. of the animals represented. Show them the minerals, their diversity, colors, kinds, &c. ; and then take them into the laboratory of nature, and show them the operations of the chemical and philosophical world.

Take them again into your garden ; show them a pretty flower, (reader, did you ever see a child that was not extraordinarily fond of flowers ?) show them its parts and the uses of each ; the calyx and its texture and location as adapted to the *protection* of the flower ; the petals and their office ; the stamens, and their office ; the pistil, and all its other parts, with the uses and functions of each, and your child will be delighted beyond measure. The next day, show it another and different flower ; point out their resemblances and differences, and you not only gratify, or rather excite and develope your child's intellectual curiosity, but also teach it to analyze, compare, classify, &c.—the first step in reasoning.

“But I do not *know* enough,” says one parent. Then go and learn. Let young ladies spend less time over their toilet, music, love-tales, parties, “setting their caps,” &c., so that they can learn the more, and be the better qualified to cultivate the intellects of their children. Parents are solemnly bound, in duty to their children and their God, not to *become* parents till they are qualified to *educate and govern* their children.

“But I have not the *time*,” says another. Then you should not have time to *marry*. Take time first to do what is most *important*. But more hereafter on the duties of parents to educate *their own* children, and also on the qualifications requisite for this most responsible office. I will *first* show how to *educate* children, and then, how to find *time* to do it. And yet, strange inconsistency, many young people rush headlong into the marriage state, totally unqualified to train up their children, either intellectually or morally. And it is still *more* strange, that, with all the *interest* felt in this subject, and all the efforts made to improve it, we have only made matters worse ; because, the modern systems of education are not founded in the nature of man ; but, in nearly every feature, are in direct violation of that nature, especially of the natures of children.

Having thus laid the *foundation* of education in *observation*, not books, I proceed to build its first story, which consists in the cultivation of

EVENTUALITY : *

Desire to witness or make EXPERIMENTS ; to find out what IS ; to know what HAS BEEN, and to ascertain what WILL BE ; love of KNOWLEDGE ; thirst for INFORMATION ; desire to hear and relate ANECDOTES ; recollection of action, phenomena, occurrences, circumstances, historical facts, the news of the day, events, &c.

ADAPTATION.—Nature is one great theatre of *action, motion, and change*. These changes or operations, are almost infinite in number and variety. Rivers are ever running, the tides ebbing and flowing ; the seasons going and returning ; vegetation springing up, arriving at maturity, or returning to decay ; and all nature, whether animate or inanimate, is undergoing one continual round of changes. Man, so far from being exempt from this law, is a perfect illustration of it. Instead of being placed in the midst of one monotonous *now*, one unchanging *sameness*, his heart is ever beating, blood always flowing, lungs ever in motion, and his mind (at least in its waking state) experiencing a number and variety of incidents or events never to be told ; for, the very recital of them, would only double their number. Innumerable historical events have been continually transpiring from the first dawn of human existence until now, widening and varying with the addition of every successive being to our race. To be placed in a *one-condition state*, in which no changes or events occur, would preclude all happiness ; for, the very experiencing of pleasure or pain, or even of any mental exercise, is itself an event. Even the sciences themselves are only an enumeration of the *operations*, or the *doings* of nature. Or, in case these changes existed, if man had no primary faculty which could *take cognizance* of them, or remember them, nature would be a sealed book ; suffering and enjoyment impossible ; experience, our main guide to certain knowledge, and the best of teachers, unknown ; and all the memory of the past and even of our own existence, obliterated.

* In this work, little attention will be paid to the *order* in which the intellectual organs are usually described, but they will be taken up in that connexion which will best illustrate and enforce the author's ideas and conclusions.

Eventuality, therefore, adapts man to his existence in a world of changes and events ; lays up rich treasures of knowledge ; recalls what we have seen, heard, read, or experienced ; is the main store-house of *experimental* knowledge ; and aids reason in teaching us what *will* be from what *has* been. The function of no intellectual faculty is more important, and the loss of none, more injurious. Its development follows closely upon that of Individuality ; being one of the earliest and strongest intellectual faculties manifested in children. Without this to retain the knowledge they are hourly acquiring, they could not advance a single step in acquiring that experimental knowledge of things, the application of which is indispensable in every thing we say or do. The constitution of the human mind requires that Individuality, or a craving curiosity to *see* every thing, should be developed and exercised before reason, or any other intellectual faculty can be brought into action ; and, secondly, that *Eventuality* or the *memory* of things seen and knowledge acquired, should follow next ; and, that these two mental operations should constitute the *main body* of all our knowledge, as well as the only correct basis of all reasoning. Inferences not drawn from *facts*, or not founded in them, are valueless. Reason without facts, is like an eye in total darkness, or rather, reasoning cannot exist without being based on facts ; or, more properly, reasoning is only a *general fact*, a law which governs a given *class* of nature's operations. This arguing and drawing inferences independently of *facts* is not reasoning, it is only guessing, or surmising, or giving a therefore without a *wherefore*, which is no guide to truth, and worse than valueless ; for, like an "ignis fatuus," it only *misleads*.

These remarks, though they present the function of Eventuality in its true light, by no means do justice to its *importance*, which it is impossible for words to express. Still, they show the necessity of its cultivation in children, and that every other faculty, except observation, which is its twin-sister, must give way to its early improvement. I shall next consider

THE MEANS OF STRENGTHENING MEMORY OF EVENTS.

This can be effected *only* by calling it into *vigorous and habitual EXERCISE* ; and this must be done, particularly in children, by keeping before the mind *interesting events to be*

remembered. All this can not be done in school ; for, little occurs there to be remembered except their plays. A short story will best illustrate and enforce this point.

A teacher taking a little girl upon his knee, asked her if she went to school, "Yes, sir," said she. "And what do you do in school?" inquired he ; "I set on a bench and say *A*," was her answer. Children from three years old and upwards, are sent to school to set on a bench and say *A* ; or, to spell *A B*, *ab* ; or, *B A*, *ba*, *K E R*, *ker*, *ba-ker*, &c., which they do by *rote*, just as a parrot says "pretty polly," and know just as much about it, and it does them "nearly" as much good ; whereas, confining them in-doors, preventing their taking exercise, even to their nestling or moving on their seats, (for which they are often punished,) and also compelling them to breathe a vitiated atmosphere, does them a thousand fold more harm than saying *A* does them good. Strange that parents and teachers have so long violated this leading principle of intellectual culture, and no wonder that so many are consequently cursed with treacherous memories. Swing up the arm or foot of a child six or more hours daily, for years, and punish it for moving it, and see if it does not become as feeble as the memories of most persons now are ; and, for precisely the same reason—INACTION.

In addition to this, children are required to remember what does not at all *interest* them. Of what interest to them is the calling of a certain shape by *A* ; of another, by *B*, &c. ; or that a *b* spell *ab* ? Just the same that "pretty polly" is to the parrot, and for the same reason. But only tell them a *story*, or just show and explain passing *things* to them, and they are instantly electrified with interest. Their attention is riveted, and their *memory* of the story, or of the thing seen, is powerfully excited, and the *organ* of Eventuality exercised, and thereby enlarged.

Do you ask, then, what course of early education *Phrenology* points out ? I answer : *Show them things, and what things do. Tell them stories, and exhibit to them the operations of nature* FIRST ; teach them to read and spell *afterward*.

Have you, mothers and nurses, never seen children open their eyes with the dawn of day, and plead "mother, tell me a story,"—"please, mother, *do* tell me a story?" And have you never heard the impatient answer, "O hush ; I've told

you all the stories I know?" I know nothing that will stop a child's crying, quicker than telling it a story. I know of no mode equally delightful to them, and, I might add, equally *profitable*.

There is a vast amount of common sense and human nature in the Bible. To say nothing of its authenticity, how perfectly does it harmonize with this principle, when it directs the Jews to "tell the Lord's doings to their children, and their childrens' children, and they again to theirs, by the way-side, and by the fire-side, when you lie down, and when you rise up." "Write them upon the doors," &c., "that they may be a perpetual token of remembrance," &c. In other words: Tell your children, your grand-children, and your great grand-children *stories* of God's dealings with the children of Israel; their sojourn in Egypt; their departure; their wanderings in the desert; their rebellions, and all the incidents connected with Jewish history. The tenacious adherence of this nation to their ancient customs, renders it highly probable that this injunction is followed more or less to this day; and, accordingly, I have *invariably* found Eventuality surprisingly large in Jews; larger than in any other class. It is probably not too much to add, that our best oriental and historical scholars are Jews. From what I have seen of them in this respect, I unhesitatingly assert, that they far exceed any other people. But of this, the reader can judge for himself. What history equals that of Josephus for accuracy or minuteness of detail? And is not the Bible, considered merely as a *history*, characterized for the same qualities?

Again: the North American-Indians perpetuate their histories in the memories of the rising race. The old grand-father, too feeble to wield the tomahawk or chase the stag, takes his little grand-son upon his knee, and recounts to him, with a minuteness and accuracy of which we can form no idea, the battles he has fought, the enemies he has killed, and the manner of killing them, his journeys and every little circumstance connected therewith, even to the starting of a deer, or the flying of an owl; as well as the aspect of the country, the mountains crossed, and rivers forded, and their windings, &c. A specimen of their astonishing powers of recollecting and narrating, is to be found in the life of Blackhawk, dictated by

him to an interpreter after his first visit to this country, some of which was extracted into the Phrenological Journal, Vol. I, No. 2. That article the writer prepared; and, in looking over the work for selections to illustrate his developments, I was surprised at the perspicuity and minuteness of details of his story. Beginning back at the time when his tribe inhabited Montreal, he related, and that at the age of 70, those prophetic revelations which preceded their removal, and all the incidents of their successive journeys as the whites drove them back, and still farther back; the particulars of his joining Tecumseh in fighting against Gen. Harrison; the details of the war in which he was taken prisoner; the injustice of the whites; his travels through the United States; whom he saw, and what was said on various occasions, &c., &c., with a precision of detail which is rarely if ever found in our own race. I hazard nothing in saying, that the Indians know more of their national history than the Anglo-Saxons do of theirs; because, the former tell it to their children in the form of *stories*, while the latter put it in their libraries, and teach their children to "set on a bench and say A." Let the two but be *united*—the very course I propose to pursue—and the attainments of our children would doubtless be incredible, far exceeding any thing now known.

Let every reader ask himself whether he does not remember the incidents and stories of childhood with a clearness and minuteness with which his present memory bears no comparison? But *why* this weakening of this kind of memory? Because you sat "on a bench and said A;" that is, because your early education repressed instead of exciting Eventuality; so that its inaction diminished it, and *not* because the constitution of man requires it to become enfeebled by age. You had nothing to remember, and therefore remembered nothing. And if you wish to *improve* your memory, *go to remembering*; for, the more you *try* to remember, the more you *do* remember, and the *more* you remember, the *better* you are able to remember. It is a mistaken notion, that the more you tax your memory, the less you remember. The *reverse* is the fact, fact, unless other things confuse you, and wear out your brain. Ask our post-office clerks, if they do not find their memories of names, faces, changes ordered, &c., to *improve* instead of be-

coming weaker. Many a lesson of this character have my travels taught me. In South Boston, I requested several omnibus drivers to do errands in Boston, to bring over one thing and another, and noticed that they never took a memorandum of the errand, and never made a mistake. They often do twenty errands at a trip, and do not put down a single one on paper; yet seldom make a mistake. The second time I went to the post-office in Boston, the clerk, without looking over the letters, told me I had none. I requested him to look. He said it was of no use, still, to satisfy me, he looked, but found none; and, scores of times, he told me that there was, or there was not, any thing for me, the moment he saw my face, without my being able to detect a single mistake. If he said yes, he found something; if no, nothing. Must it not require a most extraordinary act of memory to tell whether any of the vast number of mails arriving daily, brought a letter for me or not, or for any of the thousands who were constantly applying, whether strangers, as I was, or citizens? Yet, doubtless, every reader of these pages, might have had, perhaps can yet obtain, as good a memory about some things, if not every thing, as this clerk has.

My own experience on this point is, perhaps, worth relating. From the first, I have practised giving *written* descriptions of character along with charts; and, when a company was examined, or when several examinations were made in succession, being compelled to postpone the writing till I had more leisure, I charged my memory with two things; first, the size of every organ in each person examined; and, secondly, with *what I said* about each, until I could write them out, which often was not till days afterward, and till hundreds in the mean time had been examined. I sometimes took memoranda at the time, but would not look at them till I had written what I remembered, and have seldom had occasion to add any thing. When I did not charge my mind with the examination, it passed out of it as the person left the room, unless it was worthy of being remembered, or unless my brain was exhausted by fatigue. To say that my memory, not only of examinations, but also of places, faces, and the size of organs, has doubled several times, is to fall short of the fact. It is rare that a circumstance, though trifling in itself, is mentioned as connected with my visit to a certain place or family,

which is not remembered, the only difficulty being in remembering *names*—a point to which, till recently, I never attended; and now, only slightly. In Boston, having occasion to order an article by packet from Philadelphia, on taking out my pencil to write the names of the ship and captain, its leads were out, and no means of making the memoranda were at hand. Applying this principle, I thought it over and over and over again, till “The Robt. Waln,” Capt. Martin, was indelibly impressed upon my recollection. In visiting families—and I often have appointments every evening for three weeks ahead—I never allow myself to note down either name, date, street, number, or hour, or the number to be examined, and *all* from *practising* the principle I am urging. Nor would the gold of the world, if such a thing were possible, buy of me the mere *improvement* in the various kinds of memory effected by applying this principle. Let the *reader* practise it, and in five years, he, too, will say the same. Nay, more. Doubtless every reader may double the power of any kind, or of *all* kinds, of memory *in six months*, and improve it fifty per cent in one month. At least, it is worth the *trial*—which consists only in the vigorous and habitual *exercise* of your mind upon what you wish to remember—a simple remedy, but a glorious result.

Following out this principle, I seldom lecture from notes, but from memory alone; though never commit, in which, not having practised, I do not excel. My work on Phrenology was composed, not from notes, but from recollecting the heads and characters of those described in it; and I could fill ten more just such volumes from the same source, without departing one iota from what was said at the examination, except omitting unimportant parts.

These remarks about myself, which might be greatly extended, are not prompted by a boastful spirit; for, I claim no great credit for doing what my business *compels* me to do; but, by a desire to present the reader with a scene from real life as a sample of the means of exercising, and thereby improving, the powers of memory, especially of *Eventuality*, as well as to illustrate the great law on which the education of the opening mind should be conducted. I will just add, that the study of Phrenology far exceeds all the mental exercises I

ever experienced or read of, for disciplining the memory, and improving the mind. Its study is, therefore, cordially recommended not only on account of the glorious truths and rich mines of thought it opens, but merely as a means of *strengthening the memory* and *improving the mind*. But more of this after I have analyzed the other intellectual faculties.

Were other illustrations of the extent to which memory may be improved by exercising it, necessary, I might state cases related to me in my practice. Mr. White, dentist, Tenth street, near George, Philadelphia, informs me that his wife's uncle, who resides near Reading, Pa., was unable to read, or write, or keep books, and yet, that he usually did business to the amount of hundreds of thousands of dollars, annually, without ever having been known to make a mistake as to the amount due from him or to him, till after he became intemperate.

After giving this lecture in Clinton Hall, in February last, a gentleman stated to me that he knew an extensive drover in the New York market, who could not read, write, or keep books; yet, who would sell out a drove of hundreds of cattle, one to one man, another to another, a half to a third, and a quarter to another, and yet, keep every one in his head, their weight and price, and amount due from each; and, said he, "I never knew a single mistake; and, what is more, he will do the same of droves sold years ago." He stated it as his full conviction, that he never forgot a single hoof he ever sold, or its weight, or price, or purchaser. If the reader thinks that this draws too largely upon his Marvellousness, I reply, wait a little; for, you may yet see collateral evidence of its truth. I give it as my full and deliberate opinion, that the mind of man is so constituted as to be able, if the organs be fully developed and mind properly disciplined, and if the body be kept in the right state, to *retain* EVERY thing it ever received. Unquestionably, our memories are originally constituted to be *fact tight*—to let *no event of our lives*, NOTHING ever seen, heard, or read, escape us, but to recall every thing committed to its trust. Look at the astonishingly retentive memories of children. And yet their brains are still soft and immature. What, then *might* the memory of *adults* become? As much stronger, more minute, and tenacious, as their brains are capable of

becoming more solid and vigorous. But modern education *weakens*, instead of improving the memory ; first, by relaxing, weakening, and almost destroying the tone and power of the body, and thereby the vigor of the organs in the *base* of the brain, including the perceptive or knowing organs,* and, secondly, by giving them, especially *Eventuality*, little stimulus, little food, so that it becomes enfeebled by sheer starvation and inaction. It has little to do, and therefore does not do that little ; carrying out the principle that "From him that hath not, shall be taken away *even that he hath.*"

A similar fact, but one still more in point, occurs in the case of Mr. McGruigan, of Milton, Pa. In 1836, I examined his head, and found all the intellectual organs amply developed. I well remember the bold prominences of *Casuality*, as well as the perpendicular ridge, somewhat resembling a part of a pipe stem, extending upwards through the centre of the forehead, which indicates the *recent* enlargement of this organ. In my visit to Chambersburg, Pa., in 1839, he waited on me to request an hour's interview. He then expressed himself in the strongest terms as to the extent to which memory was capable of being improved, expressing the strongest desire to be, what his age and circumstances prevented his becoming, a public lecturer, simply that he might enforce upon young men the importance of memory, and the means of cultivating it.

He said that at twenty-five, his memory was most miserable. If he went from his house to his shop for any thing, he usually forgot what he went for. If he went to town, he forgot most of his errands. He could not recollect any thing he read or heard, neither names, nor words, nor dates, nor facts. At length he resolved no longer to submit to this forgetfulness, but to *discipline* his memory, in doing which he adopted the following method. When he wanted any thing from his house, he would think over and over in his mind what it was that he wanted, thus *exercising* his *Eventuality* upon it, and thereby remembered it. He would read a passage and re-read it, and then think it over and over, or, in phrenological language, would exercise his *Eventuality* upon it, strongly impressing it upon this faculty. He would then lay by his book,

* The proof and explanation of the relative or reciprocal influences between the *body* and the *base* of the brain, will be given hereafter.

and still revolve it in his mind, and then read another passage, and go through the same process in reference to both together, and so on with the entire book; thus constantly exercising his Eventuality. After a little, he could keep the history of two books, and then of three, and four, each clearly before his mind at once, and carry them along in his memory as he reads them.

But he found that he forgot *names*. He pursued the same course in reference to this kind of memory, and thus improved it also. But he observed that he forgot *where* on the page he left off, and was obliged to turn down a leaf. This would not do. He each time impressed upon his Locality *where* he left off, and that in each book, and shortly found *this* kind of memory likewise improved. He also exercised his Causality in philosophizing upon what he read. Now, if Phrenology be true, his organs of Eventuality, Locality, Language, &c., must once have been small, but now they are all large, showing their increase by exercise, and he informed me that now, at sixty years of age, his mind is more vigorous, and his memory more retentive, than *ever before*—that it still continues to improve, though at his age, all kinds of memory are usually feeble and declining.

Let it be observed, that he adopted the very method to increase his organs pointed out by Phrenology, namely, the *vigorous exercise* of the very powers he wished to improve. He is acknowledged to have the best memory, and to be the best informed man in central Pennsylvania. Lawyers, doctors, and the literati from all that section, go to him to obtain information on doubtful points, and deem it a great privilege to hear him discourse, and to gather that information which his extensive reading and perfectly retentive memory enables him to impart. You who have poor memories, go and do likewise; for, your memories, equally with his, are susceptible of improvement, and probably to as great a degree, provided your constitutions are unimpaired, health good, and regimen proper.

This case furnishes an additional fact to prove that the organs are capable of being increased; for, if Phrenology be true, Eventuality must have been small at twenty-five; but it has now become large, from its exercise.

Elihu Burritt, the learned blacksmith, is another example of what man's mind is capable of accomplishing. [See Journal, Vol. III, p. 27.]

Parentage unquestionably contributes its quota to this result, but education must *perfect* it. Nearly *all* children have prodigious Eventuality, and all adults *might* have it, if they would but *tax* their memories. If Mr. Burritt's case does not prove that all can be Burritt's, Mr. McGruigan's goes far to favor that all may be McGruigans. Reader, only try the experiment as directed, and I will stand sponsor for any *failure* except *your* failure to *persevere* in *trying* it—you giving credit in case of a successful issue.

I might sustain and enforce the point I am now urging by almost any number and variety of similar facts, and afford additional encouragements to those who are disposed to try it, but if what has already been said, is not abundantly sufficient, both to prove our position, and to encourage, especially the young, to adopt the simple and easy course pointed out, additional labor would be in vain. Still, that he that runs may read, and that no stone may be left unturned in order to elevate the *intellectual* character and standing of man, I will add a few directions, as samples of what is to be done, and how to do it.

When you retire at night, devote fifteen minutes to a review of the events, sayings, and transactions of each day. Thus: I rose (Eventuality) this morning at six o'clock, (Time,) went to such places, (Eventuality and Locality,) and did such and such things (Eventuality) before breakfast, (Time,) which I ate at seven o'clock, (Time,) said and heard such and such things at breakfast, (here recall the subject-matter of conversation,) went about such a business, (Eventuality,) saw Mr. —, (Form,) who said such and such things, (Eventuality and Language.) This angered me, and I said thus and so in reply, (but I ought not to have lost my temper, and will avoid it in future,) and so on to the end of the day. Every Saturday evening, extend these reviews of the past through the week, and then often recall the events of childhood and youth. This course, besides disciplining your memories, teaches you one of the very best lessons you can possibly learn. It will enable you to see your past errors, and to avoid them for the future

—will give you a just estimate of your doings, sayings, &c., and, though it may cause you to drop a tear of penitence over the wrong in feeling, conduct, expression, &c., yet it will be the most effective instrument of reform and self-control you can employ ; because, the pain felt in contemplating the wrong, and the pleasure connected with a review of the good and the virtuous, will instinctively lead you to avoid the former and practice the latter ; and for precisely the same reason that a burnt child keeps out of the fire, namely, because it *pained* him, or that a happy man seeks again and again the *cause* of that happiness. Does not this course commend itself to the good sense of the reader, at least enough to secure a trial ?

This same course should be pursued by parents and teachers in regard to children. Ask them what they have seen to-day, and when they have told you one or more things, ask them what else, and then what else, and get them to tell over all the *particulars* of the doings of the day, which will cultivate their *Language* as well as *Eventuality*. Then induce them to tell over what they saw at such and such times that you may name ; to tell you the story you told them about Franklin, or Washington, or the Revolution, &c., which may have before been told them. Let the elder children tell stories to the younger, and let the aged and doting grand-father tell them the habits and customs of men when he was a boy, and recount to them the scenes of his youth, &c.

Closely connected with this subject, is one of *great* importance, namely, having the recollections of childhood and youth all *pleasurable*. Man not only recalls the past, but he *enjoys* or *suffers* from these recollections. A single dark spot, a single act of our lives that leaves a moral stain upon the disk of memory, is ever afterwards capable of piercing us with the keenest of pangs, while the recollection of what is *pleasurable*, throws a bright beam of happiness upon us every time it is recalled, equal to that experienced in the event itself, which thus doubles the pleasure connected with the event a thousand fold. Hence, it is *immensely* important that *all* our recollections should be *pleasurable*—that childhood and youth should be made, and should render themselves as *happy* as possible ; which will greatly facilitate and induce that exercise, and consequent improvement, of the memory I am urging.

I now put it to the common sense of every reflecting mind whether the course thus far pointed out, does not commend itself to every reflecting mind as infinitely superior to the present method of educating children? whether it does not account for the miserably poor memories of most adults, by attributing it to their not being *exercised*? whether this not exercising the memory is not caused by children's want of *interest* in the common studies of the schools? and whether this course is not in perfect harmony with the nature, laws, and action of mind, particularly in children? If so, let it be adopted.

Another important suggestion, growing out of this analysis of Eventuality is, *showing children experiments*, chemical, philosophical, &c. &c. "What!" exclaims an astounded reader, "teach children chemistry, natural philosophy, natural history, &c., and that before they are taught to *read*? I thought you were a crazy simpleton before, but now I *know* you are." Wait, reader, till we see whether this craziness and utter folly do not appertain to the *present* course of early education, instead of to this *phrenological* course. After showing the child things, flowers, animals, the contents of museums, &c., as pointed out under the head of Individuality, and telling them stories, and exciting their Eventuality, as just described, show them the changes and phenomena of matter. Show them the whole process of vegetation, from planting the seed in the ground, up through all of its changes of swelling, sprouting, taking root, shooting forth out of the ground, becoming a thriving plant or vegetable, budding, blossoming, shedding its blossoms, and producing seed like that from which it sprung. And what if, in thus examining these most interesting changes, they do pull up now and then a blade of corn, or kernel of wheat, or a valuable plant, will not the pleasure and instruction thereby afforded them, repay the loss a thousand fold? Show them how acorns produce oaks; peach or cherry *stones* peach or cherry *trees*, which again produce peaches or cherries, and so of other trees and things. Then put a spoonful of vinegar into a glass of water, and stir in ashes or pearlash, or any other alkali, and watch their surprise and delight at seeing it foam and froth, perhaps run over. Then explain to them the manner in which pearlash is made by draining water through lye, boiling down the lye till it be-

comes thick and hard, then melting it, and at last refining it; and then show them how it is that taking this alkali in the form of pearlash, or even by drinking water into which ashes have been put, is calculated to cleanse a sour stomach by the acid and alkali combining and neutralizing each other.

Then show them how a sour stomach is produced. After explaining the position, looks, and office of the stomach,* tell them that eating too much, or more than the stomach can digest, makes this food lie in it so long that it begins to ferment or sour, like cider or beer, which disorders the blood, and causes sickness unless removed; that this souring creates a gas, which may often be seen blubbering up and the bubbles breaking; that, in distilling grain into alcoholic drinks, the grain is first fermented, and this gas converted into alcohol; that it is this same gas which sometimes bursts a barrel of new cider or bottle of beer that is working, and makes the cork fly out with a noise or explosion similar to the report of a gun, and which causes the *frothing* of new beer, cider, champagne, &c.

Then take a bladder, partly filled with air; let your child hold it near the fire and see it swell, and carry it back and see it shrink, carry it up and see it swell, etc., a few times, and he will be delighted to observe that heating it makes it swell up, and that cold shrinks it. Then let him take a vial or bottle, and fill it so that another drop will make it run over, and set it down before the fire; and, as it becomes hot, it runs over; as it becomes cool, it settles down. Then, that this expanding of the water is what makes water boil over a hot fire; the bottom which is hottest, expands, and this causes it to rise. A few similar experiments will teach your child one great truth; the law of nature that heat expands, and cold contracts, all bodies; that, therefore, a clock or watch goes slower in warm weather than in cold, because the pendulum is longer; that a red-hot tire, put on to a wagon-wheel, may be comparatively loose; but as it cools, it becomes very tight, so as to make

* Few children, even of twelve years old, know that they have a stomach. They know that fowls have gizzards, and cattle, hogs, &c., paunches, (which some people relish,) because they have seen them butchered; yet, do not know that *they* also have a digesting apparatus for disposing of the food daily consumed.

the wheel strong, &c. And remember, that when you have taught them this law of nature, you have taught them a lesson they will never forget ; a lesson they will have occasion almost daily to use, a principle with which they will instinctively associate every like fact they ever learn, which, without this association, would soon be forgotten ; a lesson in *reasoning*, or the first complete, and the most important, intellectual process, namely, that of *inductive* reasoning, or reasoning from *facts* up to the laws that govern them.

But, before completing my remark on this head, I must analyze other organs in order to show how to train them all to *combined* action, and proceed with

COMPARISON :

Or, discovering the unknown from its RESEMBLANCE to the known ; reasoning from parallel cases, or from a collection of similar facts up to the laws or first principles that govern them ; detecting error from its opposition to FACTS, or from its incongruity with truth ; ability and disposition to CLASSIFY phenomena and things ; perceiving and applying the principles of ANALOGY, or the RESEMBLANCE of things ; ability to generalize, compare, discriminate, &c. ; critical acumen ; inductive reasoning ; power of explaining and illustrating ; disposition to use comparisons, suppose similar cases, employ similes, metaphors, figures of speech, &c.

ADAPTATION.—The principles of resemblance and analogy, run throughout the whole range of creation. All human beings closely resemble each other. All have a nose, mouth, brain, heart, eyes, bones, muscles, hands, feet, &c., and in nearly the same relative position. The resemblance of every animal to every other animal of its own species, and indeed to *all* other animals, man included, is very striking : and so of the rest of creation. This resemblance of things teaches us a vast proportion of all we know. Thus, seated around a winter's fire, eating an apple, we feel as sure that it grew on an apple-tree instead of in the ground, or in an animal like an egg, as that we are eating it, and yet we did not *see* it growing there. If fire be brought in contact with flesh, we know beforehand that it will burn, and cause pain instead of pleasure, and pain of a certain kind. But *how* do we know this ? Because this fire and flesh are similar to all other fire and flesh, and Comparison tells Eventuality that the effect of bringing the two in contact, will be *like* the effect experienced a thousand times before by applying fire to the flesh. On seeing a

stranger, of whose habits we know nothing, we infer from his similarity to other human beings; that he requires food, sleep, and breath, and that he cannot eat iron or arsenic; that he has lungs, a heart, stomach, &c., and that they are in a certain part of his body, &c. How do we know without trying it, that a certain tree, cut up and put on a fire, will burn, throw out heat, and produce ashes and smoke; that a given stone thrown into the air, will fall to the earth; that water will run down the inclined plane; that cutting off a sheep's head will kill it; that ice is cold and fire hot; that animals will bring forth, each after its kind; that food will nourish, earthenware break, and a sharp edge cut; that fish grow in the water, and that a bird cannot live long immersed in that element? The faculty of Comparison teaches us not only these, but thousands of other things of every day occurrence about which we know nothing except from their *resemblance* to other things which we have known to be what we *infer* of these. This is doubtless one of the most valuable, if not decidedly *the most* valuable, of the Intellectual Faculties. These illustrations show how vast an amount of knowledge is communicated by it; and, consequently, how important its proper *cultivation*.

It should be added, that, there are doubtless *two* faculties of Comparison: that the lower acts with the *perceptive* faculties, comparing *physical* things, and thereby teaches us physical lessons; and that the upper acts with the *moral* faculties, comparing *ideas, analyzing, discriminating, criticising*, and aided by Causality, giving *logical* acumen. There are, also, in all probability, two organs of Eventuality; the inside one for remembering the scenes and associations of *childhood* and *youth*; the outside organ for recollecting business transactions, and the occurrences of the day, week, year, and latter part of life; and, two of Individuality: the inner for recollecting things lately seen; the outer, for noticing and remembering things seen in childhood; but the last two are quite doubtful.

Having shown that this faculty lies at the very *basis* of much of our knowledge, it should be added, that it is one of the *first* intellectual organs developed in children, following closely after that of Individuality and Eventuality, and is indispensable in order to *complete* almost every mental operation. To children it is still more important. Without it, they

would learn very little, and that very slowly; but, by its aid, they soon learn to generalize and compare, instinctively inferring, when they see what one thing will do, that another thing just *like* it, will do the same. Page 37 contains a principle which applies here with great force; namely, the *inductive* method of reasoning; that is, of inferring from a multitude of *similar facts* that all *like* facts are governed by the *same* law, and may, therefore, be safely relied upon. This is the best, and almost the *only*, way of arriving at conclusions which are *certain*. This method of reasoning is *natural* and simple, and adapted to the mind of man, and *particularly* so to the intellects of *children*. Through this channel, therefore, instruction should be poured into their inquiring minds. Every teacher, every one at all conversant with the minds of children, will bear witness how readily they comprehend a *comparison*, and how forcibly an *illustration* strikes them. Then *cultivate* this faculty, and teach them to draw *correct* inferences from this source. In short, teach them the *inductive* method of reasoning from *facts* up to their principles. After showing them that heat expands the air in the bladder, the water in the bottle, and a few like experiments, as mentioned under the head of Eventuality, page 37, their Comparison will draw the inference, that heat will enlarge and cold diminish *all* bodies. They are now taught one *principle*, one *law of nature*, one *general* fact, which, they will ever after apply, and you should aid them in applying it, to a great number and variety of the operations of nature and art. Tell them that water is expanded by heat into steam, which rushes out of the tea-kettle when the water boils; that it is this principle of expansion which imparts the power to the wheels of the steam-boat, and thereby drives it through the water against wind and current, and carries all machinery propelled by steam; that heating the air in the stove rarefies or enlarges it, and this produces the draught; that this same principle makes the wind blow, and so of its other applications.

Then take another class of facts, and bring out its principle; then another, and another, and another still, keeping their expanding and delighted minds full of subject matter for observation and contemplation; and always afterward, whenever they see a fact coming under any of these principles, they will

remember it; and, when they wish to attain an end, they will operate by means of these facts.

This is the organ through which explanations mainly enter the mind; and hence, great pains should be taken to *explain* every thing, not to get rid of your children, but to *instruct* them. They ask a great many *questions*, which are either *what-what* questions, or *why-why* questions, and every opportunity of conveying instruction thereby afforded, should be embraced. I well remember once asking my father, who was husking corn, *why* a certain ear, the rows on which were irregular, looked so differently from all the rest? "Because it is not *rowed*," was his answer. Over this answer I thought, and thought, and wondered what he could mean, and finally concluded that, as he went through the cornfields to *hoe* the corn, so he probably went through to *row* it, but skipped this ear. Now see how excellent an opportunity this question afforded for teaching me the important lesson that nature showed economy in every thing—that the cobs being round allowed more corn to grow in a given space than if in any other shape; that the kernels were all placed in rows so that all the space might be filled up; for, if they were *not* in rows, some kernels would be too much crowded, and in other places there would be nothing; and, that the human body was so contrived as to bring the greatest possible number and amount of organs and functions into the smallest possible space; and so of all the other operations of nature. Every day and hour, the continual string of questions asked by children, affords opportunities to explain some important truth, or teach some valuable lesson; and yet, strange inconsistency! many parents become angry at their children for asking so many questions, or else turn them off with those answers that are not satisfactory.

An unusually inquisitive, that is, uncommonly smart child, once asked her grandmother, "what are bricks made out of?" and was told "of sand and clay." "Then what makes them red?" asked the child; "O do hold your tongue. Don't ask so many questions, and no one will know you are a fool. Little girls should be *seen*, not heard," was the reply. The grandmother could not tell why, and therefore became angry at the child for asking. This questioning is as impor-

tant to the intellectual growth of children, as the root is to a tree or plant; and yet, wonderful to tell, in our present system of education, no provision is made for answering these questions. What questions can or do children ask at school? Almost none. Now I appeal whether answering these questions does not do them *far* more good than learning to read? Does it not exercise, and thereby *improve*, their intellects far more? for, let it never be forgotten, that in order to *enlarge* the intellectual organs, they *must* be *exercised*; and, what *interests*, *excites*, and thereby *enlarges* them; but what does not interest, does not excite, or enlarge, or benefit them. Looking at the present method of education through the optics of Phrenology, or through the principles already pointed out, which is the only *correct* light in which it *can* be viewed, I really do not see how it is possible to devise a more effectual method of deadening the action of the brain, or *weakening*, instead of strengthening, the faculties of the mind; for, surely, no course would be less *interesting*, aye, more, none could scarcely be more *disagreeable* to them, and therefore, (not less beneficial, which would imply some good, but) more *injurious*; for, beyond all question, the present course is *decidedly detrimental*. With my present knowledge of the subject, I boldly avow my preference to remain *untaught*, than to be sent to our present common schools. They are *injuries* instead of blessings, and Phrenology will soon sweep them into oblivion, or else effectually *remodel* them. See if it does not; and that *speedily*.

I have other remarks belonging more appropriately to Comparison than to any other faculty; yet, as education, to be successful, must *combine* the exercise of *all* the intellectual faculties, I can present them much better after I have analyzed

CAUSALITY.

The power of perceiving and employing the principles of causation: ability to discover and apply first principles, and trace out the relations existing between causes and effects: desire to know the why and wherefore of things: ability to reason, or draw conclusions from given premises: to plan, invent, contrive, adapt means to ends, take the advantage of circumstances, create resources, apply power most advantageously, and make the head save the hands: to predict the results of given measures, and tell what will be from what has been: sagacity: the leading element of common sense: the therefore and wherefore faculty.

ADAPTATION.—Every effect must have its cause, and every cause produces its effect. *Like* causes also produce *like* effects,

and all the operations of nature are governed by *laws* of cause and effect. It is as natural for man to ask "why," as to breathe or eat. *Why* this desire to *know* why? What *causes* this disposition to investigate causes? Whence our *idea* of causation, and our disposition to employ certain *means* in order to attain given ends? Laws of causation govern the phenomena of nature; and, this faculty in man adapts him to them. Without them in nature, all would be chance and hap-hazard. Man could accomplish nothing, could rely upon nothing. Without this faculty in man, though the operations of nature would go regularly forward, and effects succeed causes, yet *to man* they would be a sealed book, a dead letter, and as though they were not. But, with this arrangement of nature on the one hand, and this faculty in man adapted to it on the other, man can accomplish innumerable ends otherwise unattainable, procure innumerable comforts otherwise beyond his reach, and even *force the elements* into his service. Still more, he can penetrate the otherwise hidden operations of nature, ascertain their fountain head and procuring causes; and, aided by the moral faculties, can comprehend those *moral* causes which govern *moral actions*, or the department of *mind*, and apply them to the production of happiness.

This train of remark, while it expounds the office of this faculty, also exhibits its value, and at the same time shows how immensely important are its proper cultivation and habitual exercise in childhood and youth.

Our next inquiry asks *how*—by what *means*—so important a faculty can be cultivated and improved? I have already shown that to *improve* any faculty, its proper *stimulus* must be presented; and, to do this, its *nature* and *adaptation* must be ascertained, and that placed before it to which it is adapted. The *causes* and *laws* of things being adapted to this faculty, *they* must be placed before the child's mind. This, their questions from three years old and upward, enable us to do with great facility and effect. "Ma, what *makes* this? Pa, what is that *for*?" and like questions are pouring from their mouths a continual *stream*, enabling parents and teachers to pour *as* continual a stream *into* their minds. Let children be much with their parents, and be allowed and encouraged freely to ask all the questions that occur to them; and let parents, in

giving these answers, give the *true* cause or *none*. Many parents—sometimes because they do not know *how* to answer their questions, and sometimes to quiz them, but more often because the minds of the parents themselves are biased by wrong principles—teach their children to *believe* instead of to think; or to think erroneously by teaching them to think from *incorrect data*, which warps their Causality from the very first. Children should be taught to do their *own* thinking, and to answer their own questions. They asked a question yesterday, to which a correct answer was given; to-day, they ask another, and receive a correct answer, and to-morrow, ask a third, the answer to which, or the *principle* involved, was explained yesterday. Recall these answers, and tell them to put this and that together, and judge for themselves as to the results about which they inquire. In other words, give them the *data*, and then let them think, judge, and act for themselves.

Little fear need be entertained about their coming to *incorrect* conclusions; for, Causality, and all the other intellectual faculties, act by *intuition*, and, unbiassed, will always come to the *right* conclusion. That same intuition, or instinct, or what you please, which makes the child breathe, and nurse, and sleep, also governs the action of all its faculties, the intellectual included. It teaches Individuality to observe, and observe *correctly*; Eventuality, to remember action; Form, to know whether a thing is round, square, conical, &c., and to recollect the *shape* of things; Size, to tell them correctly the bulk of things, their distance, &c.; Weight, to resist and counteract the laws of gravity; Comparison, to generalize; and Causality, to reason and adapt means to ends. All that Causality requires, in order to come to *correct* conclusions, is to have the right *data* placed before it. Far too many parents do the thinking for their children when they are young, and this makes them get it done *out*, when they are older. This explains that relative *decrease* of Causality already shown to exist in Children. Has the reader never observed the fine, noble foreheads of children, their height, their expanse, and those marked protuberances at the sides of their upper parts which characterize the intellectual developments of children? Cast your eye over the foreheads of a hundred children, and

then of a hundred adults, and if you do not see a marked *superiority* of the former over the latter in proportion, then you do not see what I am daily *pained* to observe—pained, not because children have such fine heads, but because *adults* have so *poor* ones. I do not hesitate to maintain the opinion that the difference is from one-fourth to one-half in *favor* of children, and *against* adults; whereas, the difference *should* be in *favor* of *ADULTS*; because the law of our nature, as explained on pp. 31--33, of Phrenology applied to Education and Self-Improvement, shows that the *mental* temperament and faculties are destined to increase in a far greater ratio than the *physical* powers, or organs of the *feelings*.

The intellectual *capacities* of children are also far superior, in proportion, to those of adults. Observe their remarks. Are they not often full of pith, and meaning, and idea? Do they not often expose the absurdity of the dogmas that are taught them? Do they not evince a sagacity, a penetration, a quickness, an intuitive comprehension of things, not found in them when grown up? And do they not possess a power of contrivance altogether astonishing? I was never more surprised than on seeing a little girl, not yet eighteen months old, praise her aunt in order to obtain from her sugar and other favors. When she said "pretty aunt Charlotte," or "aunt Charlotte, your dress is pretty," aunt Charlotte knew that she was coaxing her, and working around upon her blind side in order to get a favor. When a little over two years old, as the family, in connexion with her uncle, were eating almonds and raisins in the evening, she awoke, and knowing that it was useless to ask father, or mother, or aunt for them, went to her uncle, whom she did not like any too well, and laying her head back affectionately upon his lap, said, in a very coaxing tone and manner, "pretty uncle Lorenzo. Uncle Lorenzo is good." The next morning her mother asked her—"what made uncle L. pretty?" "Because almonds and raisins is pretty," was her artless reply. To administer praise as a means of obtaining favors, without ever having been taught to do so, and that at eighteen months old, certainly required an exercise of Causality, in laying a deep, appropriate *PLAN* to bring about a result, to a degree rarely attributed to children. This is not probably an extraordinary exercise of Intellect in a child of that age. Doubtless the generality of children ex-

hibit nearly as much. I maintain not only that, as already expressed, the intellectual *organs* of children are far better developed, in proportion, than those of adults, but also that their *ideas*, their powers of intellect, of penetration, sagacity, comprehension, inquisitiveness, intellectual curiosity, and the adaptation of means to ends, are also proportionally far superior to those of adults. For the correctness of these opinions, I appeal to the *observation* of all who are conversant with the intellectual *developments or manifestations* of children under eight years old.

How is this? What *causes* it? Is it *natural*? "God forbid!" It is *unnatural*. It is because the intellects of children, and especially their reasoning powers, are shut up in a school house, are pinned fast to a bench, are deadened over A and *baker*, are stifled by the inability or refusal of parents to answer their inquiring minds, and to feed and fill their opening intellects. Their brains wither and shrivel up, and their blood stagnates over those studies upon which they are placed, or else a fatal dislike of books is engendered by the dislike or punishment of the teacher, by parents whipping them to school and from play, and by the almost total inadaptation of the present system of common school education to the opening minds of children. If Phrenology be true, and if, as such, it reveals the true principles of conducting the intellectual education of children, I hazard nothing in pronouncing this system directly at variance, in almost every particular, with both the laws of mind in general, and the developments of the minds of children in particular. Phrenology shows conclusively that the organs should be cultivated and exercised *in the order* of their development; that the organs first developed are Individuality, Eventuality, and Comparison; that Causality, Form, and Locality follow next; and that the other organs over the eyes are much later in maturing: and that teaching children to read, spell, and write first, is *not* calculated to excite, feed, or develop their intellectual faculties; and that the confinement consequent upon sending children, especially those that are *young* or *delicate* to school, is most injurious; that therefore, the present system of early education is a curse, not a blessing, deadens instead of developing the intellects of children, and is one of the main causes of that want of intellect

which characterizes the mass of mankind ; and that the method thus far pointed out, of teaching children *things first*, telling them stories, showing them the operations of nature, trying philosophical, and other experiments, &c. ; teaching them natural history, and answering all their questions, as well as leading them up from facts to their laws, and teaching them to do their own thinking, harmonizes with the nature of mind in general, and of the *infantile* mind in particular ; that it *interests*, and thereby excites, improves, and invigorates that mind, and is directly calculated to develop it in all the power and glory of its primitive creation.

I know this is strong language, but *I know it to be TRUE*—I know it is *nature* as well as Phrenology, and that it *will prevail*. And the object of this work is to promulgate this as the first step in effecting this much needed reform—a reform lying at the very basis and foundation of *all* reform ; for reform, to be successful, *must* be based on *intellect*, and this requires the *early* cultivation of that intellect, the natural governor of man. Still more. These results are based on *common sense* : and, if they do not strike every reader as substantially correct, at least in the main, then his common sense is not my common sense, nor the common sense of Phrenology. Let each inference of the series just given, be pondered and cavassed, and compared with what is known to be true of the opening minds of children, and rejected or adopted accordingly. These doctrines must encounter a mass of prejudice, *but they will conquer* ; and to *oppose* them is to be *beaten*.

Owing to causes already pointed out, Causality is one of the smallest of the intellectual organs. Hence it is that the great mass of mankind get their thinking done by *proxy*—that religious leaders do most of the religious thinking of mankind ; political leaders, most of their political thinking, &c., and that mankind generally adhere to the religion and opinions of their parents ; that cunning, designing men exert so much influence over mankind, converting them into mere tools and dupes to carry forward their selfish, foolish, or villainous projects—that riches are more highly esteemed than talents—that men who live on the Approbativeness, or Combativeness, or Alimentiveness, or curiosity, or almost any other *feeling* of mankind, succeed to a charm, while those who live by their *intellects*, usually

starve—why reforms make so slow progress, and effect so little—why the conversation of young people, especially of fashionable ladies, is soft and nonsensical—why the few are enabled to control the many—why so little time is devoted to intellectual culture, and so much to the gratification of the passions; why so little is yet known of *nature*, her laws and doings; why, in short, the *intellectual* lobe of men is so small, and the propensities so *large*.

But how can this organ be *cultivated* by adults, especially by *young people*? Simply by *thinking*, musing, meditating, contemplating, and inquiring at the shrine of nature into the laws and principles that govern things.

“But I’ve nothing to think about,” says one. Poor soul, you *are* to be pitied. A world of wonders even within your self, and yet, barren heath, you’ve nothing to think about! A world of wonders above your head and beneath your feet, and yet, poor thought-ridden mortal, you’ve nothing to think about! All nature around you teeming with events, every one of which has its cause, and most of them a cause within your reach, and yet, thought-starved mortal, you’ve nothing to think about! Poor thing, you should have a name and a place among other idiots.

To all *young* persons, then, I say, THINK. Wherever you are, whatever you are doing, if you see anything you do not comprehend, whether in nature or art, ferret out its *cause*, and then *think* about it: do not be ashamed to expose your ignorance in order to gain knowledge. Take a walk every day, two or three times a day to *think*, muse, meditate, contemplate.

“Oh, but I’m too busy for that,” says one. Then you ought to be too busy to eat and sleep; for the *mind* requires food and exercise as much as the body. “But I have not sufficient *time* even to eat and sleep,” is the reply. Then no matter, but you *must* find time to *die* the sooner for *not* thinking; for, intellectual culture is directly calculated to *prolong* life, and is also a means of rendering it much more happy, and of effecting much more in the same time. Even as a means of accomplishing mere *worldly* ends, you will be a gainer by *cultivating your intellects*: for, its increased power will enable you to *save* more time by taking a shorter and surer road to your

ends, than you lose in its culture. Besides: there is scarcely an occupation in life, which does not furnish more or less opportunities for thought; for, while the hands are employed in labor, the mind also can be employed in meditation. Of all occupations suitable for intellectual culture, *farming* is the most favorable. Labor is promotive of mental action, while mornings, evenings,* rainy days, &c., increase the facilities for study.

The study of Phrenology is also highly promotive of intellectual culture; because, first, it deeply *interests*, and thereby excites the mind to new and vigorous action; and, secondly, it opens a far richer mine of thought, and field of intellectual research, than all other studies united, for it unfolds *man*.

I will just add that *night* thinking is highly injurious. While the natural sun pours its benign rays upon the delighted world, let your thoughts be also poured out upon the fields of nature, to be gathered in, expanded and instructed, as he descends beneath the western sky. Rise with the sun, or rather, with the *break of day*, nerve your mind *gradually* to action, as the skilful hunter strains his unstrung bow by *degrees* and be ready to commence your day of intellectual labor with the rising of the sun; and, by the time he disappears in the west, you should have exhausted your cerebral energy for the day, and be sinking with him into the refreshing slumbers of night, to re-awaken and rise again with him the next day.

I will just observe in passing, that if you have anything to do more important than cultivating your intellects, do, in all conscience do it. If you cannot spare time from the *fashionable* world, or the *working* world, or the *political* world, or the *money-making* world, or the *ambitious* world, then do go on; for, your business is indeed of the *utmost* importance. All these things must of course be done up *first*, and intellect be

* The allusion here made to farmer's studying evenings, is adapted, not to the NATURE of man, but to that false custom of setting up late at night so general—a practice as reprehensible and injurious as it is universal. The good old Yankee habit of retiring at farthest by nine o'clock, is well worthy its high origin. All children should be taught to retire with the setting of the sun, and all adults should practice it, and lectures, meetings, &c., should be held in the day-time. But more of this in another place.

thrust away back behind them *all*; because, if a man be *rich*, he gets along well enough without intellect; if poor, he has no time or means to use it; if he have on a fashionable coat, or can make a dandified bow, intellect would spoil both; if she be a young woman, she must first get *married*, and study how to attract the admiration of gentlemen, instead of throwing away her time in *thinking*; but if married, she must take care of her family and children; and so it goes the world over. Hence, *intellect* is considered of very little account any how, and not worth the time or pains of rearing, except to a few in an age.

LANGUAGE:

The COMMUNICATING faculty: power of expressing one's ideas by words, whether spoken or written: ability to learn spoken languages, and to use such words as will exactly express one's ideas: memory of words: versatility of expression: talkativeness: volubility: garrulity.

ADAPTATION. Man is a *communicative* being. He has thoughts and feelings which he wishes to express, and which his fellow men are benefitted by hearing. This faculty is adapted to the exchange and inter-communication of ideas between man and man, and therefore highly promotive of human happiness and improvement. Besides being one of the most powerful stimulators imaginable of nearly every one of the other faculties, it is certainly an instrument of intellectual improvement, and of moral and social enjoyment unsurpassed by any other faculty.

Let every human being be tongue-tied, let every word ever used, be blotted from existence, and writing, printing, and reading totally abolished, and what an intellectual, moral, social, and business stagnation would follow! Nothing could be sent for; the American Phrenological Journal must stop; scarcely a want would be expressed or supplied; and man's condition in every way would be most wretched. But, thanks to the great and good Author of our being, man *can* talk, write, speak, chain and be chained, to the mighty car of eloquence, and drink in the thoughts and feelings of others, in all their endless number and variety.

The *value* and *uses* of this faculty being great, its proper *cultivation* is equally important. How, then, can it be *cultivated*? Do I not hear a word-bereft stammerer say, "Oh, I

would give all I have to be able to express what I think and feel! to have the power of transplanting my ideas and infusing my thoughts into the minds of my fellow-men? to be *eloquent*, to be fascinating in conversation; in short, to have large Language? I have tried my best, I have studied Greek and Latin—have translated Homer, Virgil, Demosthenes, Cicero, and Horace; have learned Hebrew and Arabic, French and Spanish, and yet, I *cannot* speak in public, or even express my ideas freely in conversation.” Then I pity you; for, you have been walking a treadmill all your life to get forward, but have gone *backward* faster than forward. I can put you upon the track of cultivating your Language in short order. *Go to talking*. That is what you have to do. Just talk, talk, talk. This will exercise the *organ* of language, and increase your power of expression, whereas, studying the *dead* languages from books, will do you more harm than good. “It *will*? Why you astonish me; I thought this was the way to *cultivate* Language!” This is just where the learned have *always* erred. The one, distinctive office of Language is, to employ *words* to communicate ideas, especially *orally*; and the one and *only* method of materially *improving* it, is to *communicate*, especially to *talk*. This point is clear and certain, and though at war with the whole learned world, *it is right*. To set a child “on a bench to say A,” and to send a youth to the academy and college to learn languages, in order to make him a fluent speaker, is sending him to the equator for ice, or to the poles for flowers. By *preventing* his talking, it *rusts* his organ of language, making him worse instead of better. But the most serious point of this serious evil is, the injury it does to his health, which *directly impairs* the tone and power of this organ, and thereby weakens the faculty. The law that produces this result, will be explained elsewhere. Sufficient for the present to say, that this organ, being close to the body, partakes intimately of the state of the body, being weakened or strengthened as the physical powers are increased or impaired. Most college graduates break down their health, and weaken, instead of increasing, their speaking and talking talents. Has the reader never observed that he could converse, write, and speak with infinitely greater ease when *well*, than when *unwell*? This

principle explains the cause ; and teaches you this valuable lesson, that, in cultivating both your own and your child's language, *health* should be preserved *first of all*. Confining children in school, prevents exercise and physical development, and this diminishes the power and versatility of Language.

All children are incessant talkers. Whether or not they have *ideas* to communicate, is quite immaterial. Their tongues are always running. Their prattle is incessant. Not so with adults, especially with Yankees. Now *why* this falling off of Language? "Stop that whispering yonder, or I'll box your ears for you," says a school-master to a child with large Language. And if, prompted by the instinctive workings of this faculty, another is caught whispering, he is surely punished. Better punish him for breathing or getting hungry; for, each of the three is equally natural and useful; and to punish for either, is cruel and unjust. In giving them Language and a tongue, the Author of their being gave them the *desire* and the *right* to use them in talking: nay, he even made talking their *duty* as well as privilege. Who, then, art *thou*, teacher or parent, that *dares* suppress this right derived from heaven, or punish its exercise? God and the child will hold you guilty for doing it; the former, for nullifying his works, and the latter, for weakening so pleasurable and useful a faculty.

"Then what *shall* we do? for we cannot have the whole school jabbering away so that we can't hear ourselves think," say the teachers. Then send your children home. "But," says a parent, "how in the world can I get along with all my children pothering me, and deafening me with their eternal clatter? I must send them to school in order to get rid of them; and, when there, they must keep still, or I'll whip them." Good lady, if your children are so *very* much in your way, you had better not have any. But since you have them, consult their good, and especially their intellectual advancement, not your own comfort. *Phrenology* says, let children talk all they please; and who art *thou* to "muzzle the mouth of the ox that treadeth out the corn?"

Besides, all will concede that *expressing* our ideas, increases their flow, and quickens the action of the mind. This truth is too self-evident to require either proof or illustration. Pre-

venting your children from talking or whispering, is preventing them from exercising, and thereby from enlarging, their intellects. "But must I be forever harrassed by their incessant clamoring and hallooing? Have I not a perfect *right* to keep them still?" Just such a right as you have to stop their breathing or eating, or to cut off their heads, or as the Hindoo mother has to drown her children. You certainly have *no* right to cramp, or in any way embarrass the *development of their intellects*. I grant that there are times and seasons when their garrulity should be suppressed, (not restrained,) by their own sense of propriety, or because they interrupt parents or superiors. Yet they should not be *compelled* as now to remain silent for hours together. In treating of the *government* of children, I shall show how this prattle, when improper or obtrusive, may be prevented without punishing or even commanding them.

The best possible method of making a child an eloquent speaker, is to allow him the full, unrestrained use of his tongue during childhood and youth; but, send him to school, and let him be kept from saying a word there for the seven hours of the fourteen he is awake, and kept very still at home the rest of the time, and then send him to college to break his constitution in thumbing lexicons, allowing him little chance to speak, except passages committed to memory from some bombastic author; and when he graduates, have him always *speak from notes*, (excuse the self-contradiction of *speaking a written* discourse,) and if he does not make as dull and prosy a speaker (?) as the generality of our college graduates are, and be as formal and artificial in tone and gesture as though his mind and body were lashed up in a straight jacket, then water will not run down hill. Compare our Methodist clergymen with our Presbyterian, and tell me which class is the most eloquent? Those who mount the pulpit and go to speaking *from the first*. Scarcely a spark of true eloquence escapes college-learned clergymen, except what congeals on the pen. Seldom do *written* discourses *come* from the heart or *reach* the heart. Eloquence can never be *written*—can never be dug up among Latin rubbish or Grecian mythology. No! it must be *felt and spoken*. Nor does it consist in *words* merely, nor in the ideas, but mainly in the thrilling, melting *TONES* of the voice.

How glorious a gift is that of eloquence! See it in Demosthenese, when he made his listeners seize their arms and cry out, "Let us march against Philip. Let us *conquer or die*,"—in Patrick Henry, when he roused and electrified Congress, and prepared the way for drafting the Declaration of Independence; and in a few others who, by this power, exerted an almost *unlimited* influence over the minds of their fellow men. To say that there is a thousand times more *natural* eloquence in man than is brought out by culture, or by the modern method of education, or rather, to say that most of our natural eloquence is *buried* in our school-houses, academies, and seats of learning, is to utter a palpable but lamentable truth. Ye who hesitate for words, who have ideas but do not know how to let others have them, who lose much of the force and beauty of your ideas or the power of your feelings in vain attempts to communicate them, who hesitate for words and want to say something but cannot, may thank your "setting on a bench and saying A"—your being boxed, or ferruled, or disgraced for whispering in school, and kept still at home for it. In other words, thank those who prevented, when they should have encouraged, your talking disposition. From *such* thankless thanks, "good Lord deliver us."

If you wish to regain this lost sheep, go to talking. Drive out your ideas somehow, anyhow; but, at all events, give them breath. Join debating societies and speaking clubs, and make talk with every one you meet. Commit to memory and repeat, in short, *communicate* and *use words* as much and as well as possible. This will call this *faculty* into action, and improve it, as well as enlarge the organ. It is worth your trial. *Especially* if you wish to become a *public* speaker, *speak* in public, and take down your notes in your *brain*, employing the principle already presented.

Much pains are taken to teach children good *grammar*. This may be obviated. Your rules of parsing, &c., are of little service. I will point out a far more excellent way. Let parents only *speak* properly, and always use *good* language, and their children will do the same. To speak and write *properly*, is as *natural* as to speak at all; and this is as natural as seeing or breathing; because each is the intuitive exercise of its appropriate faculty. The error commences *in the cradle*.

Parents, especially mothers, usually talk *baby* talk to their children, which consists in saying silly things ungrammatically. If infants do need milk to nourish their bodies, they certainly do not need silliness to feed their minds. Talk *ideas* to them or say nothing; and speak grammatically, and also use good language, and your children will do the same.

A word more in regard to this baby nonsense. Like excites like. This is as true of infants, comparatively, as of adults. Children over two years old, understand, or are capable of understanding, most that is said to them. If ideas be spoken, their ideas are excited, and intellect developed; and, if good language be used, they will not only *imitate* the same, but even feel their sentiment of the beautiful excited, and good taste thereby cultivated, besides having matter for reflection. "A word to the wise," &c. The conversation of parents to their children, and of adults before children, might and should furnish an intellectual *feast* to their opening minds—should be grammatically expressed, and clothed in good language. Then will children, too, speak correctly, and charm you with the beauty and power of their words, as well as grow up with superior and fascinating conversational powers, if not become *natural orators*; and man's enjoyment derived from talking and listening, be augmented twenty-fold.

Parents, *will* you not be persuaded to banish your baby balderdash, and your grovelling associations, and *elevate* and instruct your children by *conversation*, as well as by example?

In what has been said relative to learning the dead languages, the reader is not to infer that I consider a knowledge of them useless or valueless, or am hostile to their being taught and learned. I approve of them highly; but I repudiate the *modern method of teaching* them; for, it is unphrenological. The method of teaching and learning them pointed out by *Phrenology* is, *talking* them. Books may be used as *auxiliaries*, merely, but not as the *main* method. Besides their spending several years of the best portion of their lives in acquiring Greek, Latin, and Hebrew, they usually forget all they ever knew about them, soon after leaving college. If they would have a school for teaching Greek, or Latin, or Hebrew, in which all the *conversation* was in the language

they were learning, besides acquiring a thorough knowledge in one-tenth the usual time, they would then *retain* this knowledge, and be able to turn it to some *practical* account. The modern method of teaching French, by taking the pupil into a school and family where no other language is spoken, except in explanation of what they are learning, is the only true one. But the *best* time to learn the languages, is in *childhood*, the nurse, or parent, or teacher, *talking* these languages to them.

The importance of speaking *correctly*, in common conversation, and also of selecting just those words which convey your feelings and precise meaning, is great, yet little realized. Chesterfield has well remarked that good conversational powers are a perpetual letter of recommendation. They delight and gratify all who listen, besides storing their minds with useful knowledge and valuable suggestions. The ideas of nine-tenths of mankind loose more than two-thirds of their beauty and power in consequence of their not taking pains to speak with beauty and force, but expressing themselves carelessly. Speak so that every word shall charm and impress, and this style will soon become *habitual*. Still, do not be affected, nor use *far-fetched* expressions.

Committing to memory comes under this organ, and is a valuable quality. The *extent* to which this power can be carried, is astonishing. A clergyman in England, delivered a lengthy address from manuscript, which he refused to let be published. One of his listeners, however, wrote it out *from memory*, and on comparing the two, there were only fourteen words that were not the same in both, and these were analogous.

Every body knows Attree of the Herald. As a reporter, he has few equals, and yet does not write short hand. Still, he gives his reports almost verbatim. His organ of Language is very large, and he commits or writes a speech from memory with astonishing facility. In a recent conversation with him, he remarked that, unless he kept it in *habitual exercise*, this faculty became rusty. Though he doubtless owes much to nature, yet he unquestionably owes more to cultivation. This power of committing to memory, is extraordinary in most children, and should always be kept vigorous by *exercise*.

They love to learn by rote, and they should be indulged in it. This exercise can and should be commenced long before they are old enough to learn to read, and continued through life. Printers in particular require it.

FORM.]

Cognizance and recollection of the *SHAPE* of objects, and of the *FACES* or countenances of persons, of the form and looks of things, of family resemblances, &c.: good eye-sight.

ADAPTATION. Every physical thing, all the pieces or items of matter which constitute our world, have some *form* or *shape*. No physical thing can exist without having *some* shape or configuration. By means of it, we are able to designate and remember one person or thing from another. Infinite wisdom has wisely given the quality of *shape* to all bodies, and, at the same time, imparted to man the faculty of Form, to enable him to perceive, and make a useful application of, this elementary property of matter. Without this element in nature, man could not recognize his fellow-man, or any thing in nature; but, with it fully developed, he recollects persons and things seen years ago, and distinguishes the animal, vegetable, or mineral kingdoms, by their shape.

This is one of the principle faculties employed in reading and spelling; though Language renders important assistance; Form, by recollecting the *shape* of letters and words, and Language, by committing to memory. This leads me to speak of two important errors in the present method of teaching reading and spelling: first, of teaching children the shape of *letters* instead of words, the other; of teaching them to spell *by rote*—by the *way it sounds*, instead of by the *looks* of the word.

From what has before been said against teaching young children to read, let it not be imagined that I am opposed to their being taught these branches at all. Learning to read so as to *understand* the sense, requires much maturity and strength of mind; and teaching children to read *mechanically* by *rote* merely, just as a parrot says "pretty polly," is a positive *injury*. because it compells them to call the words but skip the *sense*, and this causes them to fall into that monotonous *sameness of tone* which characterizes most readers, adults

as well as children, and is easily detected in most speakers, especially clergymen. It should therefore be postponed till they are capable of appreciating the full force of what they read. Still, after the way has been prepared by reading interesting stories to them, and kindling in them a desire to read, so as to read these stories themselves; and after they are capable of comprehending the *sense*, they should by all means be taught to read. Few if any children are capable of this before they are six or eight years old; and when they begin to tease you to teach them how to read, because they wish to *enjoy* reading, almost all children could be taught to read in one month, and to read better than they would have read if they had begun at three years old. The reason is obvious. By beginning to read before they are capable of *understanding* the sense, they not only take no *interest* in the matter, and therefore learn slowly, but often conceive a *dislike* to reading; and hence read only when *compelled* to. But wait till they are *eager* to learn, and they will take the deepest *interest* in the matter, and *form a taste* for it, which is of immense advantage. Scarceley one child in fifty but hates study; and the reason is here disclosed—they learn to read before they are able to understand what they read; and therefore conceive a dislike to books which lasts through life. The mother of Wesley would not let her son learn a letter till the day he was five years old, and that day taught him every letter of the alphabet; and, the next day, she taught him to read the first verse in the Bible. (See Southye's Life of Wesley.)

I have always brought out this point at my lecture on the intellectual organs, and have afterward been waited upon by hundreds who have stated *facts*, showing that children from six to eight years old, could be taught to read well *in one month*. In 1837, I gave this lecture in New Haven, and in going to New York the next day, a gentleman, one of the theological students, stated as an illustration of this point, that a friend of his forbade his boy learning a letter or opening a book till he was six years old; that, by this time, the boy's *desire* to read had kindled almost into a passion; and that, in *one month*, he learned to read fluently in the Bible, and had ever since been devoted to books. Hundreds of similar facts

have been told me; and if any parent will pursue a similar course, I stand sponsor for the result.

But I will point out a method of teaching children to read, shorter and better than the present, and one which will obviate two-thirds of the difficulty connected with reading. It is this. Teach your child *WORDS* instead of letters. Thus: it is just as easy for your child to learn bird, as to learn b, or i, or r, or d; and this method saves him that immense difficulty of *compound-ing* the elementary sounds. And it must come to this after all I appeal to every good proof-reader in christendom, whether he does not detect typographical errors by the *looks* of the word, not by spelling it over, or by remembering its gingle. The word *looks* wrong. It *strikes his eye* as incorrect. In other words, *Form* is the proper organ for spelling and reading; and therefore children should be taught to read and spell by the *looks* of words, not by *rote*. And this cultivates the organ of Form, or the *natural* organ for reading and spelling. Language may render important *assistance* by spelling by rote, yet Form should be the *principal*.*

To cultivate this faculty, bear in mind the *countenances* of those you see, so that you may know them again. Formerly, the circus performers and exhibitors of live animals, often allowed those who visited them in the forenoon, to pass in free in the afternoon or evening. If they gave tickets, they would be transferred, so that *others* would go in. Hence, the door-keeper was compelled to *recollect* them. To do this, he was obliged to look *sharply*, not at their dress, which might be changed, but at their faces. I have seen scores of trials, and every device contrived, to cheat the door-keeper, but never saw a failure. I regarded this as almost supernatural, but now see that their vigorous *exercise* of Form, enabled them to *carry faces in their eye*. This is practiced very successfully on our southern and western travelling routes. The collectors on the steamboats, rail-roads, &c., are obliged to remember who has

* Lyman Cobb's new spelling-book contains one important improvement over all others, namely: that of placing all those words which are spelled differently, but pronounced alike, in different columns—those words ending in *ION*, in one column, those ending in *SION*, in another, &c. The plan is most excellent; better than any other now in use.

paid, and who not, and where they came on board. I ask whether their power in this respect is not often remarkable—all from its *exercise*. In England, there is a class of persons connected with prisons, whose business it is to detect old convicts. They closely scrutinize every one who is brought in, looking at every peculiarity in the form of the nose or its insertion, at the mouth, eyes, forehead, shape of the body, &c., and rarely allow any one who has been in before, to pass undetected.

This affords a hint to all who would cultivate this faculty. Look every one full in the face: notice, and impress on your mind, the cast or expression of countenance, the general contour of body, and continue looking till you have *rivited* it upon this faculty, and this will increase its power.

WEIGHT :

Intuitive perception and application of the principles of GRAVITY: ability to balance one's self—to ride a fractious horse, hold the hand steadily, throw a ball, stone, or arrow, straight: shoot well, walk the edge of a plank, climb aloft without falling, preserve and regain the centre of gravity, keep the balance, &c.

ADAPTATION.—Without the arrangement, in nature, of *gravity*, or of attraction and cohesion, not only would all bodies be as likely to rise as fall, and be incapable of being kept in any particular position, but even the particles composing every body, would be dissolved, and scattered any where and every where throughout space. No house could be built; for, what would keep its materials together? What keeps the ocean in its bed, or the rivers from running *up* the mountain, or from being scattered over hill and dale, and destroying every thing? The rain would *ascend* as quickly and as often as descend, and our world be utterly uninhabitable.

The same Wisdom which instituted this indispensable arrangement in nature, also created the faculty of Weight in man to be its counterpart, and to perceive and apply its laws; else, we should have fallen and rolled where gravity carried us, and been incapable of doing the first thing to counteract its sway. But thanks to the Author of our being, we can not only resist its action, in part, but even convert it to our service. Without it, we could not walk or sit; with it, we can stand against wind and tide, manage machinery, and effect beneficial ends innumerable.

Its cultivation is highly important, yet little attended to. Who ever thinks of inculcating its exercise in children, or practising it themselves, unless by chance? And yet it should be commenced in infancy. Instead of holding or bracing up a child, so that it *cannot* roll over or fall, let it hold itself up, or else roll into some uncomfortable position, so as to teach it to steady itself, and sit up, creep, &c., early. As soon as it can stand or walk, encourage it, and as early as possible, take it on your hand, in a setting or standing posture, and, partly holding it and partly not, carry it around the room on your extended hand, and change its position more and still more quickly, so as to teach it to *keep itself* from falling.

But most mothers take the *opposite* course, which is highly injurious. They *forbid* their children's climbing up on chairs, by the window, on fences, trees, &c., because "you'll *fall*," and are continually ringing in their ears, "take care! take care I tell you! you'll fall! *you'll fall!*!" This always reminds me of a fidgety old grand-mother, who charged her grand-son never to go near the water *till he had learned to swim*, lest he should get drowned. This is just like those mothers who forbid their children's climbing lest they fall. The very way to *prevent* their falling, is to *encourage their climbing*. This exercises, and thereby enlarges their organ of Weight; which, when large, renders them more safe aloft than those who have it small are on the floor. *Cultivating* this faculty, in these and other ways, will prevent their getting many an extra *bump*, which injures their brain, and induces its disease, just because the parent *prevented* its exercise by forbidding its climbing, throwing stones, &c. And then, too, it is useful in so many thousand ways through life, that its due exercise should form a part of early education, as much as talking, and for the same reason, namely, that *both* are *functions of our nature*.

CALCULATION:

Ability to reckon figures IN THE HEAD: memory of numbers: intuitive, perception of the relations of numbers or figures: MENTAL arithmetic: numerical computation: adding, subtracting, dividing, and multiplying MENTALLY.

ADAPTATION. Every thing and collection of things in nature, has a *number*. We cannot help regarding things as one, two, three, four, &c., that is, *counting*. Let all idea of number

be effaced, and no business could be transacted; millions of dollars would be as one, and one as millions; or rather, man would be incapable of comprehending or distinguishing either one or many, and all pecuniary transactions must cease. Important advantages grow out of this arrangement in nature and faculty in man. It should therefore be *cultivated*, but not as it generally is, by waiting till a child is old enough to "cipher," and then giving him a slate, pencil and arithmetic, and requiring him to learn a rule, and then to work out the sum on the *slate*. All children *love* to count. Encourage and aid them in this. At two years old, teach them to count your fingers, and other things, and then to perform other numerical operations *mentally*. I verily believe that if every arithmetic in christendom were destroyed and no more printed, the rising generation would learn to cast accounts *better* than they now do. I grant that, properly used, arithmetic *might* be useful, but they are *now* made to *supersede* the *natural* method of reckoning things, that is, *in the head*. Nature is always better than art. Though the latter may *aid* the former; yet, when art *usurps* the prerogative of nature, it only spoils her operations. This teaching children *ciphering*, and that by rule, and thereby leaving *mental* arithmetic almost uncultivated, accounts for our being obliged to employ figures; whereas, in nearly all business transactions, the *head alone* should be used.

Those who would cultivate this faculty, should *rely* upon their heads, both for *casting* accounts, and for *remembering* them, and should embrace every opportunity when riding or walking, to exercise it. Thus: in riding on a rail-road, observe by the minute or second hand of your watch, how many seconds you are in going a mile, then reckon the number of miles per hour, then per day, per year, &c. Then count the rails of a fence and its crooks in a mile, and then multiply the number of rails in a crook with the number of crooks in a mile, and so wherever you go, you can be making similar calculations.

If calculating dollars and cents be more agreeable to you, because it combines *Acquisitiveness* with Calculation, then reckon the prices of such things as you may have occasion to

buy, sell, make, handle, &c. Reckon what so many yards of cloth will come to at so much per yard, varying the price and number of yards at pleasure, and so of the prices of any thing; and when you go to the store to buy, keep this faculty busy to see if the clerk has reckoned it right. And let clerks in stores reckon *in their heads*; for, this will enable them to do it more rapidly and accurately. Arithmetic, and slate and pencil, may be employed occasionally, merely as an *assistant*, but *mental* arithmetic should be the *main* thing they rely upon for casting and keeping accounts. I know a jobber who has done business to the amount of hundreds of dollars per week, but who can neither read, write, nor cipher, but who keeps all the transactions of each week in his head till Saturday night, when he will tell them to his wife to put them down. He remarked that, when a young man, he worked out for different men, and took up his wages along as he wanted them, but never put anything down, and yet, at the end of the year, usually found himself more correct than those for whom he labored, (See p. 31). He added that he never had the least confusion as to his business, till his son-in-law began to keep *books* for him. According to my view of this subject, *Colborn's* arithmetic and its improvements by other authors, are far more consonant with the phrenological method of teaching arithmetic than any other I have seen.

You should also *charge* your memory with numbers. Thus: Eighty million pounds of coffee are consumed annually in the United States, and twenty-five millions in Great Britain; and so of other statistics. You would then seldom be at a loss for statistical information—the most difficult matter to be recollected. Applying this principle to dates, you would be able to recollect the date of things recorded in history, that is, the *number* of the year; though recollecting the *time* from one event to another, comes under

TIME:

Cognizance and recollection of WHEN, of SUCCESSION and the LAPSE of time, of DURATION, dates, &c.; disposition and ability to keep the BEAT in music, dancing, &c.: and to tell the time of the day, WHEN things occurred, &c.

ADAPTATION. Instead of being planted down in the midst of one unchanging *now*, man is placed in a world of *succes-*

tion. One event happens BEFORE OR AFTER another. His life is composed of a CONTINUITY of times—of a continual variation of periods. From infancy to old age, up through childhood, youth, middle age, old age, and death, every day, hour, second, and item of existence, *follows* its predecessor, or *precedes* its successor in point of *time*. We look back upon the *past*, and cast the eye of hope or dread *forward* into the *future*. We make appointments to do certain things at certain *times* to come, and all are able to discern the *arrival* of those times. This faculty adapts man to this arrangement of succession. But for this arrangement in the nature of things, all doings or exercises of mind relating to the past or future, would be annihilated, all conception of any other period than the *present*—than one monotonous now,* obliterated, and with it, all the arrangements relating to *eras*, ages, years, the seasons, months, days, hours, seconds, the relations of infancy, childhood, youth, middle age, old age, death, the past, and the future, &c., extinct to man; which would effectually break up the present order of things. With this arrangement in nature, but without this faculty in man, though they would exist and succeed each other, that existence and succession, and their application to appointments and to every thing connected with the past and future, would be as utterly inconceivable to man, as the beautifully blended colors of the rainbow are to the blind, or as music is to the deaf. But with this arrangement of time in the nature of things, and this faculty in man adapted to it, man can hold converse with what *has* been, and what *will* be for thousands of years each way—can divide and subdivide the future and the past to his liking, and have a *time* for every thing, and every thing in its time.

* The only rational idea man can form of eternity is, one continuous now, or the utter abolition of time, and substitution of one continuous now. To talk about eternity continuing through myriads of successive ages, is utter folly; for, a succession must have both a beginning and an end. The idea of periods of time, can no more be connected with eternity, than an end can be connected with the circle. Thus, Phrenology will help religionists out of many an otherwise inexplicable difficulty. Mind, unconnected with matter, knows nothing about space, bulk, ponderosity, colors, etc., which are terms belonging to matter.

This arrangement is highly calculated to promote health, and eminently useful in the despatch of business. Nearly all the operations of life require its assistance, and are facilitated by its full development. Hence, its cultivation becomes an item in education of very considerable importance; and yet, that cultivation is scarcely once thought of from the cradle to the grave; and hence too, it is usually one of the smallest organs in the human head. This need not, and *should* not be; it should be *cultivated* from infancy to old age.

The only means of cultivating it is, to EXERCISE it, and this can be done, not by carrying a watch in your pocket, and often reading the time of day from its dial, or from a clock before you, but from keeping the time of day *in your head*, and retaining in your memory the *when* things took place, or the *order* of their occurrence, *how long* certain events occurred before or after others; the day of the week, month, and year of their occurrence, &c. I verily believe that if every time-piece in christendom were destroyed, and no others made, mankind would be better off than they now are; for then, they would be compelled to *exercise* this organ vigorously, which would so strengthen it as to enable it to do all that time-pieces now do, with equal accuracy, and a thousand other things which time-pieces can never do; whereas now, the time being kept in their pockets, this organ has nothing to do, and therefore does nothing, becoming small from mere inaction, and the pleasures flowing from its exercise thereby abridged. Men would be more punctual than they now are. Their time-pieces would vary less, never run down, and admonish them that a certain time has come; whereas now, *nature's* time-keeper being laid by, we often forget to look at that of art, and so the time appointed passes unobserved.

I have always strenuously advocated the superiority of *nature* over art. The latter may often be employed to *aid* the former, but never to *precede* or supersede her. Time-pieces may aid Time just as arithmetic may aid Calculation—books, Language—notes, Tune—geography, Locality—logic, the reasoning Faculties, &c.; but they should never *supercede* it. It should be the boss workman, they, its *assistants* merely, and rarely employed. If the works of man can excel those

of his Maker, if art can do better than nature, then are time pieces better than keeping the time *in the head*. The thought is preposterous, and this relying upon time-pieces to the neglect of that time-keeper placed by the God of nature in the head of man, must eventuate in evil. To *avoid* this evil, exercise this faculty by keeping the time *within yourself*.

The *extent* to which the exercise of this faculty is capable of augmenting its power, is astonishing—far greater than most persons would imagine. The experienced nurse will throw herself upon her couch—first charging this faculty to awaken her in just two hours, or half an hour—as the Doctor may have ordered—and this *watching* sentinel counts off the minutes and hours while the other faculties sleep, till the time arrives, when it sounds the alarm, and summonses the other faculties to the post of action. Many of our elderly farmers, who were not blessed (?) with a time-piece when boys, can sleep soundly till the time previously appointed for rising arrives, and invariably awaken within a few minutes of the time they appoint. Many elderly persons are in the habit of waking and rising at a given hour, and, whether or not they may have been previously broken of their rest, awaken at the usual time. *Every* one might and should *habituate* himself to this and similar practices. They will soon become second nature, and be of incalculable value through life. Magnetized patients, when required by the magnetizer to awaken in any specified number of minutes, do so, almost to a second, and with an accuracy incomparably greater than that possessed by most persons in their natural state.

In order to cultivate this faculty, think often during the day, what *time* it is, and compare your judgment with a time-piece; keep steps in walking, marching, dancing, &c., and the beat in music; in reading history, impress the era, and the *order* of events, strongly upon your mind, and compare eras, that is, the destruction of Carthage with the reign of Julius Cæsar, and also with the founding of Rome, the reign of Cyrus, the Peloponnesian wars, &c. Give yourself so many minutes or hours to do certain things, and observe the time taken in doing them, which, besides improving this faculty, will greatly aid you in laying out your time. Be punctual at

your meals, appointments, and every set time for doing things, and fix a time for doing things whenever it is practicable; and above all things, *employ all your time*.

This leads me to speak of an almost fatal error or omission; namely, that of allowing many a minute and hour to pass without doing much of any thing in particular. True, persons breathe, and perhaps move, or talk, but *effect* nothing of importance. They regard the loss of a half-hour at breakfast, an hour at dinner, and many minutes and scraps of time during the day, and perhaps the morning or evening or both, as of little account, and thus soon squander weeks and years, which, rightly employed, might have contributed largely, not only to their present, but also to their future enjoyment. I know of no lesson that can be instilled into the forming minds of children more important than teaching them to *fill up every minute*, every *second* of time with something *useful* to themselves or others. Who ever saw a *great* or a good man not full of business, too full to find any leisure time to waste?

Another immense consumption of time occurs in not doing the most *important* things first, and throwing minor matters into the background. A vast amount of time is consumed in being *fashionable*, in altering dresses, bonnets, &c., in preparing for parties; in making a display; in idle, foolish conversation that does no one any good; in making things of little comparative value, too numerous to mention; in preparing and drinking tea, coffee, chocolate, wines, spirituous liquors, &c. &c., mainly for *looks*, the *extra* time spent upon them, being a waste of that precious gift—existence: and so of thousands of things of which these will serve as samples.

The fact is, that man's standard by which he values things, is utterly erroneous, and this error is fatal to his happiness. Let him but consult his *nature*, as developed by Phrenology; let him see what faculties he has, their relative size when large,* and the conditions of their action, their wants, and natural functions, and he will have the true *data* for the division of

* Large Cautiousness occupies several times more brain than large Size, and large Causality or Adhesiveness, than large Color, or Weight, etc.; and the larger any faculty is in this sense, the more happiness or suffering will its action impart.

his time. Two or three faculties combined, now usually engross most of the time of man, besides enslaving the other faculties. Let all the time spent in every thing appertaining to raising and preparing food and eating it, and in drinking, (Alimentiveness) to fluttering in the sunshine of fashionable life, [Approbativeness and Self-Esteem,] to love, [Amativeness and Adhesiveness,] and to acquiring property, [Acquisitiveness,] be separated from the time spent in other things, and the balance would be small indeed. Is it right, is it wise to allow these few *animal* feelings to rule the entire man? Was man made merely, or even mainly, to eat, show off, be sensual, and amass wealth? "No!" exclaims Phrenology; "for, man has *other* and *larger* organs to be fed and exercised. Our journeymen and laborers who are out of employ, do not seem to know that they *can* spend their time more pleasantly and profitably in intellectual and moral culture, than merely in getting something to live upon. Indeed, men generally do not act as though there were any thing else to do or live for, or any other source of enjoyment but *making money*, and gratifying their ambition, ill-will, love, appetite, and other merely *animal* feelings. They have overlooked the great truth that their *moral and intellectual* faculties, should engross more of their time. Attention devoted to them, is the most important, the most momentous business of life. Let time be spent on *them first*, and then let surplus time go to the lower feelings.

A vast amount of time is also consumed by one person trespassing upon the time of others. Time is life; and as one man has no right to take the *life* of another, so he has none to consume his *time*. Hence, whenever with our fellow-men, we should either let them entirely alone, or else do our best to benefit them, and be very careful how we encroach upon the time of others. Nor should we allow *our* time to be encroached upon by others, because silly fashion has made it a rule to drop whatever we are doing, and attend to company. I, for one, despise and disregard this requirement; not giving any of my time to others for *politeness* sake, and considering my short stay on earth too valuable to myself, too important to my fellow-men, to be squandered in dancing attendance at the shrine of fashion.

These remarks upon the value and improvement of time, have struck a deep and rich vein, which, at other times, and in other connexions, I intend to follow out more fully; for, it is a subject that lays near my heart, and one over which I have mourned and pondered for years. The utter folly of man in this prodigality of time,—aye, its worse than folly, its consummate *wickedness*, its *climax* of crime, and the evils clustering around this misimprovement of his earthly existence—has opened a deep vein of grief in me, and *kept* it open—kept a continual *stream* of sorrow, pouring forth wherever I turn my eyes, and whatever I see my fellow-men doing—a stream which I cannot describe, and to obviate the *cause* of which, I am determined to do all within my power. Hence it is, that, in the name of all that is sacred in our nature, I urge upon parents and teachers the importance of *cultivating* the faculty of time in children. I shall hereafter show, somewhat in detail, *how* time may be spent to better advantage than it now is—that is, how to reap from it a far richer and more abundant harvest of pleasure than man now enjoys. This *can* be done, and Phrenology shows the world *how* to do it. I can hardly forbear entering upon this subject here, but my limits forbid. In the journal department, in the series of articles entitled “Existing evils and their remedy,” I shall soon reach and expound a kindred point, and in this work, shall again broach it, when I come to show mothers how to get time to become the *educators* of their children.

TUNE.

The **MUSICAL** feeling and faculty: ability to learn tunes BY **ROTE**, and to detect harmony and discord BY **THE EAR**: ability and disposition to SING and play on musical **INSTRUMENTS**: love of melody and musical harmony;

ADAPTATION.—Man is a *musical* animal, and constituted so as to receive a great amount of real pleasure in singing and listening to music; and this faculty is the means and medium of that pleasure. It is adapted to *musical sounds* and to concord in music, and the musical octave is also adapted to it. Without it, or in its absence, one note in music could not be distinguished from another, and that soul-stirring delight experienced in its exercise, would be unknown. With it, the merry, friendly, mournful, devotional, martial, and almost

every other human sentiment and passion, can be combined, and stirred up to a degree of intensity scarcely possible without it. It may also be employed as a means of refining and elevating the feelings, and exciting the thrilling, touching, melting, exquisite, beautiful, &c.

Music is music, the world over, and concord and discord affect the ears of the savage and the civilized in the same manner. What is music to the refined Anglo-Saxon, is equally so to the red man of the forest, and the sons and daughters of China and Siberia, and their octave is our octave. The musical feeling is planted in nearly every human soul, being as much a constituent portion of man, as lungs, or brain, or a mouth, and is designed and calculated greatly to augment human happiness and improvement. It should, therefore, be universally cultivated, especially in the young. It *is* generally cultivated, but not rightly, or in harmony with its *natural* function.

Its one, distinctive function is to learn to sing *by ear*. It scorns the trammels of notes, gamuts, and fa, sol, la, but gives a spontaneous expression to this musical feeling by appropriate sounds, or else learns tunes *by rote*, that is, from hearing them sung or played. True, it calls notes and instruments, and the *science* of music, to its aid, but only as attendants and *servants*; whereas, the modern method of teaching music has rendered them *primaries* and principals, to the almost entire exclusion of singing by ear. And then, too, our concerts, oratorios, theatre, church, and parlor music, &c., is nearly all purely *artificial* scarcely a vestige of *natural* music remaining. True, great *science* and wonderful *skill* and *art* are displayed, but artificial music does not come from the *heart*, nor *reach* the heart. It may make us wonder at the skill of the performer, but does not stir up the fountain of *feeling*, nor make us happy. I verily believe that burning every note of music ever printed, and preventing any more from being printed, would augment man's pleasure derived from music, besides facilitating its acquisition. When art can excel nature, when man can outdo his Maker, then, but not till then, may we be benefitted by learning and practicing music *scientifically*, or from books first. Our colored population, especially at the south, often

make hills and dales echo with their peals of song, yet they never learn to sing *scientifically*, nor from notes, but by means of the instinctive exercise of this faculty. And yet, many music teachers actually *forbid* their pupils singing by rote; but they may as well pull out their teeth and sew up their mouths, in order to help them eat, or set them to studying the dead languages in order to make them good speakers. [See remarks on Language, p. 5.] Teach them to sing *by ear first*, and then, if you see fit to aid them by teaching the *science* and "rules" of music, and to read tunes by *note*, they may be improved and perfected thereby, but teaching them the latter *first*, is like standing a pyramid on its apex.

And then, too, learning to sing the natural way, is as much more easy than by rule, as walking on the feet is more easy than on the hands, because the former is *natural*, and the latter, unnatural. I cordially approve a practice quite common in New England, of frequently relieving the tedium of the school-room by singing a tune in which all the scholars take part, and thereby cultivate this faculty early, and in the *natural* way. Let all young children sing themselves, and let all, especially the young, instead of waiting till they have taken *lessons* in music, or for a formal set-to at the piano or accordeon, strike up the cheerful lays when about the house, or garden, or field, and promote their own happiness, as well as that of those about them, by giving frequent and unrestrained expression of those lively buoyant, cheerful, happy feelings so common to youth. Let boys whistle, and let laborers make the fields ring and the forests echo with their merry, thrilling notes of music, and let our young ladies, (except those who are corseted too tight to inspire breath enough to sing well,) as they skip and fly from room to room, strike up some lively song or pleasing chorus.

It should be added that singing is highly promotive of health; for it exercises, and thereby strengthens and invigorates, the lungs, by increasing the amount of air inhaled, and aids digestion, besides affording much exercise of parts too liable to remain dormant—three of the main functions of animal life, as well as conditions of health. It also throws a cheerful, serene influence over the mind and feelings, and infuses new life into

the whole man, physical and intellectual. Plaintive tunes, and minor modes, should seldom be sung, especially to children, for they depress the feelings, diminish the circulation, and overcast the mind with gloom and sadness, yet *sacred* music is highly beneficial ; for, it imparts a calmness and serenity to be obtained no where else.

The *combinations* of Tune, are inimitably beautiful, and, by means of them, nearly every feeling and sentiment may be enjoyed and expressed sweetly and delightfully. Thus : combined with Language and the social feelings, it expresses affection and love : with Combativeness and Destructiveness, it revels in the martial sounds of the fife, the bugle, and the drum : with Constructiveness, it wiles away the tedious hours of labor by song : with Veneration, its signs songs of Zion, and elevates and purifies the soul by kindling and expressing the sentiments of devotion, of gratitude, of praise, &c. : with Parental Love, it sings cradle ditties : with Mirthfulness, it sings the comic song : and, with unbridled Amativeness added, it joins in boisterous revelry and mirth, &c. Hence, it can be rendered subservient to the best of ends, or to the worst—can be employed to elevate and purify, or degrade and debase, its possessor ; so that its combinations with the higher sentiments should be cultivated ; but not in accordance with the modern musical tastes and fashions, which are mostly wrong. A few of their errors are too glaring to be allowed to pass unexposed and unproved.

1. Though the musical taste and talent are strong and active in infancy and childhood, yet the artificial singing of adults, does not call it into vigorous exercise, and therefore, it becomes small. After its size has been thus reduced, girls and young ladies are set down to the piano *as a task*, and *compelled* to practice hour after hour *from notes*, without any aid or relish from love of music, till they become tired and disgusted. And then, they must be laced so tightly that they cannot perform with ease, and are injured instead of being benefited, and the whole of their singing rendered stale and artificial. Still, they *must* learn music in order to get husbands ; to be laid aside when that one end of female education is attained. Now, if this singing *by rote*, and singing when about the house, while

the hands are employed in labor, were cultivated from childhood, it would be continued through life, pouring an almost continual stream of pleasure into the soul of its possessor.

2. The *words* usually set to fashionable music, meet my unqualified censure; for, three-fourths if not nine-tenths of them are love sick ditties, or the pinings of unrequited love. I can not see how half of them can be sung by a modest woman without crimsoning her cheek with the blush of shame. And then, to give music its full power, the performer must *feel* both the words and the song. It is passing strange how fashion can so "strain at a gnat, and swallow a camel," but no more strange than true. However, those *ladies* who think otherwise, have the same liberty to sing these love-sick verses that I have to think what I please about those who do it.

3. But the *principal* fault of modern singing, is that it is *unnatural, strained, and artificial*. This is a natural consequence, however, of the method by which it is taught, and can be obviated only by teaching *children* to sing, and that *by rote*. Listen to the music of the concert, the parlor, the theatre, the martial field, and even the sanctuary, and how little emotion does it stir up, compared with what might be done. Sacred music, properly conducted, would fill all our churches, and induce many to attend religious meetings, whom this artificial singing will not call out.

I doubt the utility of having the singing in our churches performed by a chosen *few*, called "the choir." Rather let it be done by the *whole* congregation. Pursue the plan already pointed out, and all will be as competent to sing in a church as *any* now are; for, all have the organ, and, by beginning young, all *might* learn to sing. This organ averages several degrees larger in children than in adults: the cause of this has already been attributed to *artificial* music having been so generally substituted for that which is natural.

A good voice is also indispensable to a good singer, and a strong constitution is equally indispensable to a good voice; so that a good voice for singing—one that is clear and strong, is a sign of good health, while a feeble voice, formed at the top of the throat, and not shrill, clear, and, full, evinces a weak, frail organization. I have noticed, also, that in addition to a strong

constitution, good singers usually have the *sanguine-nervous*, or *vital-mental*, temperament; which gives remarkable *intensity* and power of feeling, and this intensity of feeling is the most essential element in good singing.

Time and Tune naturally act together, and mutually aid each other. Hence, it is as natural for children to keep correct *time* in singing, as to sing at all. There are probably two organs of Tune, the lower one for catching tunes and singing; the upper, for appreciating the higher qualities of music, such as its harmony, and the lofty, thrilling, and exquisite in song.

Instrumental music is very good, and playing on wind instruments is calculated to strengthen the lungs, (unless carried to excess,) yet, after all, no instrument ever made by man, can equal the human voice, either for melody, or expression, or sweetness of tone. Let no person neglect to *sing daily*.

After making remarks analogous to these at Chelmsford, Mass, the Presbyterian clergyman of that place remarked, that they were in striking harmony with the system of Pestalozzi, and added that a singing master then in C., was conducting a school upon this principle. About that system I know little or nothing, not as much as I wish; but, if it be analogous to this, it must certainly be correct, because founded in the nature of mind.

LOCALITY.

Local memory; recollection of the PLACE WHERE we have seen persons or things; the geographical faculty; memory of roads, scenery, the looks of places, where on the page certain facts or accounts were seen, &c.; desire to TRAVEL and see places, and ability to find them; the WHERE WHERE faculty.

ADAPTATION.—Every physical thing must be in some PLACE, and one thing cannot be where another is. Space exists, and constitutes a *necessary* property of matter; and thus far, man has been unable to find its limits. Around us, above us, every way, it is to us boundless. The extent to which man has carried his observations, though millions on millions of miles, is probably but a small moiety of those endless fields of space which have been stretched out by the hand of the Almighty.

But for this element of things, our houses and every thing else, could have no place to be, could be *no-where*, that is,

could not be at all ; and without this faculty in man adapted to this element of matter, though his house and other things might have a "local habitation," yet he would be unable to find them, and would be perfectly lost every time he left one place or thing to find another. This faculty enables its possessor to retrace his steps through a winding road with many cross roads, or through the forest ; to call to mind the looks of places and position of things ; to find places once seen ; and to keep the points of the compass correctly in his head, &c. Those in whom it is small, soon lose themselves in a city or the woods, and find places or learn geography either practically or from maps, with difficulty.

The valuable ends attained by the full development of this faculty, are very great ; and the importance of cultivating it, is of course equally so. The present system of teaching geography, is probably less faulty than that of teaching any other science, yet it might be improved,

1. By being begun earlier, and rendered more practical. Thus ; when your child is two years old, it will know the house in which it has lived from other houses, and should have its attention called to this point. Beginning with the rooms in your house, teach it which way is east, west, north, and south, above, below, right, left, &c., and often ask it in which room the bureau, or sofa, or clock, or stove, &c. is, and then, in what *part* of the room. Then, if you live in the country, or have a garden or fields, teach it their geography, and frequently ask it where certain trees, or fields, or stones, &c. &c. are ; where the woods, wheat-field, corn-field, meadow, &c. are ; where such and such neighbors live, and a thousand similar questions. If you live in the city, pursue a similar course in regard to houses, &c., and when you walk out, ask in what direction home is, or any curious thing it may have seen.

In presenting this subject, I cannot probably do better than to draw my illustrations from the course pursued by myself in reference to my own daughter. After moving from 210 Chestnut st., Philadelphia, when she was just two years old, I observed that when she passed it, she stopped, saying, "I used to live there." Taking her upon my horse, (which, in spite of its being unusual, I did for her health, as well as my own,) as

I rode up or down the street, I ask her which way home or mother was ; and then turning a corner, I asked "which way *now*?" I one day called her attention to a place somewhat unusual in looks, and stopped my horse, requesting her to look at it, so as to remember it next time. A little further on, we saw a parrot, which delighted her exceedingly. The next day, as we came to the place just mentioned, she exclaimed with joy, "Oh pa, we are coming to the *parrot* soon." I asked her which *way* the parrot was, and thus took every opportunity of exercising her *Locality* as well as *Individuality*, *Eventuality*, *Language*, and *Causality*.

After pursuing this course for a time, you can extend your explanations to the geography of the earth, but, in so doing, bear one thing in mind—namely, to teach them the *natural* divisions of the earth, such as its divisions into mountains, rivers, oceans, valleys, &c. *first*, before you begin to explain the *artificial* divisions of the land into different countries or states. Thus, in teaching them the great natural landmarks of the earth, suppose you begin with the mountains ; and, commencing, at the southern extremity of South America, show them a map, or some representation of the Andes, and their passage north and east through the isthmus of Darien, and forming the rocky mountains, which extend to Behring's straits, cross into North-eastern Asia, forming Skamschatska and extending on to the Himaleh mountains, and then branching off, one branch forming the Polynesian Islands, and the other running east and forming Mount Ararat, the Alps, Pyrenees, rocky cliffs of Gibraltar, and the mountains of the Moon, in Northern Africa, &c. Here they have the mountainous framework of our globe.

Then teach them the divisions of this land into the basins of rivers ; such as the valley of the Mississippi, St. Lawrence, Hudson, Connecticut, &c., and their sub-divisions, the former into those of the Ohio, Missouri, Arkansas, &c. Then show them the leading characteristic, or topography of each. Each valley has its leading features. Thus ; the St. Lawrence is characterized throughout its course by innumerable falls, exactly like those of Niagara and Genesee, except in size. The same range of rocks that forms the Niagara falls, also

extends on east and forms the Genesee falls, and those in the Black River at and near Watertown. The same horizontal strata of rocks, the same deep gully below the falls, and the same fossil remains in the same strata, characterize them all, and all the rivers that enter the St. Lawrence, whether from Canada or from the U. S. The same is true of the aspect of the country.

The Susquehanna, again, has an aspect entirely different from that of the St. Lawrence. Its bed, from the head-waters of all its branches, throughout its entire course, is broad, and its waters shallow, and on each side, at almost any part of it, or any of its branches, will be found terraces, or rapid ascents from the bed of the river for a few feet and then a level, and another rise and level, corresponding on each side of the river. Its waters often run close under the base of the mountain, which often rises rapidly to a great height, and is quite regular. Any person at all acquainted with the general aspect of either of these rivers or any of their branches, in casually entering any part which he had not seen, and did not know to what river it belonged, would know where it belonged just from its topographical resemblance to the other portions of that river.

Combining the organs, or calling *several* faculties into action at the same time, will be found of incalculable value in teaching and learning geography, as, indeed, any thing else. That is, while you are exhibiting the position of places and the geography of a country to Locality; let Eventuality also be called into action by mingling the *events* or *history of the people*, with the geography and aspect of the country. In other words, let the teacher tell them all that is known of the history, peculiarities, modes of life, habits, government, laws, customs, &c., &c., of each country, together with landscape views of their principal cities, buildings, rivers, mountains, scenery, &c. For instance, connected with the geography of England, show them a view of London, taken from some point from which it can be seen to the best advantage, and then other views of "Westminster Abbey," "The Tower," "Buckingham Palace," &c., &c., with the history and remarkable events that have transpired in relation to each. And then, by a very cheap cosmorama, or a mere magnifying lens even, each pupi

could be placed in full view of London, or any other place, or scenery, or building in the world, and see it apparently in the distance and as large as life, and at an expense not greater than the present method of supplying each scholar with a geography and atlas; for then, one set could be made to serve the whole school. Let each civilized nation employ artists to take and lithograph views of their principal landscapes, cities, &c.; and then let the nations *interchange* these specimens; and let *government* supply them to the public schools. *This* is what we want governments and public officers for; not to make long speeches, and roll logs, and vote for each other, that is, "I'll tickle you if you'll tickle me." As our governments are now conducted, they do *more harm than good*, besides spending immense sums of money which, spent in the way just proposed, and other similar ones, would do good, whereas it now only robs the pockets of the people, to be squandered by public (not servants, but) *spendthrifts and cheats*: but more of this in that series of articles entitled, "existing evils and their remedy," in which I shall expose political evils and abuses, and propose a more excellent way.

By teaching geography in this *way*, children would not *have* to be whipped to school, nor for playing truant, but would long for the hour to arrive when they could go to partake of so rich an intellectual feast.

This course presents still another advantage—that of teaching *the true nature of man*. Civilized life is mainly a *perversion* of human nature; but, a summary of the true nature of man, and thus of the true road to happiness, would thus be *forced* home upon every one of the rising generation, and this would lead to an *immediate* REFORM; for, it would reveal many excellent customs practiced in savage and half civilized life, and expose many that are injurious, and thereby lead the youthful mind to reflect upon the *true* nature of man, as well as to select "the good, but cast the bad away."

Another suggestion. The national *phrenological developments* of every nation, should be given, and the coincidences between their heads and characters, should be drawn. This, besides teaching them Phrenology, both in theory and practice, would enable them still farther to form a correct estimate of

the nature of man, and to see *what* customs of different nations are in harmony with it. Drawings of national heads, and busts of their leading characters, might and should be procured. If our Exploring Expedition had taken along a skilful and devoted *Phrenologist* to make examinations of national heads, and to set all hands at work collecting skulls, busts, specimens, drawings, &c., of national heads, as well as of the animals, including birds &c, of different climes, his labors and report *alone*, would have been worth more than that of all the rest besides and been a "*quid pro quo*," or *equivalent* for its immense expense. "When will the nations learn wisdom?"

Still another suggestion. Every school should be furnished with a geological and minerological cabinet, embracing all the most important specimens of the globe. This might be done very easily, by that system of *exchanges* proposed and practiced by JOSIAH HOLBROOK. His plans are excellent. Let them be adopted, that is, let a school, situated in or near a coal or iron region; collect a great amount of iron oar, or coal of the kind near them, and let another school, situated in a marble, or granite, or scionite region, collect larger quantities of marble, or granite, or sienite, &c; and then let each school *exchange* with evrey other. Let this system be extended to *nations*, as well as schools; or, rather let them be a *national institution*, to effect these and similar ends, including the geographical drawings mentioned above, and the good effected thereby, would be *incalculable*. It would also give employment to many discerning and talented artists, who are now almost starving, as well as foster a taste for the natural sciences and the fine arts, and spread light and knowledge throughout the earth. And think you that this would not lessen our calenders of crime, empty our prisons and penitentiaries, and promote *moral purity* and *intellectual attainments*, to a degree which would well nigh drive vice and crime from our world, and do infinitely more to induce the reign of the moral and intellectual faculties than any other, if not than *all* other means now in operation, modern preaching included? This would as assuredly beget a love of study, and especially of the study of *nature*, of the *laws* and *operations* and *adaptations* of nature, which, in addition to the knowledge imparted, and the pleasure

afforded thereby, is more effectually and certainly promotive of moral purity, than any thing else in which the human mind can be engaged. To every student of nature, I appeal: Is not the study of nature *eminently* purifying and elevating to the soul? What more than the study of the works of God, is calculated to call forth Veneration in his worship, or Conscientiousness in living an upright, blameless life? What will fill the soul with wonder, praise, and love to God, more than beholding the infinite wisdom displayed in his works, and all to enable man to be happy in both body and mind? What will carry us

“Through nature up to Nature’s God?”

What will equally quell the passions, promote good feeling, and moral integrity, and dispel vice and immorality in all their forms? But I forbear, for I am encroaching upon ground appropriated to another department of my subject, namely, the importance of training the *intellectual and moral faculties to act TOGETHER*, that is, of teaching GOD in ALL HIS WORKS, of NOT teaching children ANY thing in science or nature, without teaching them GOD in it all; or, the importance of studying and teaching NATURAL theology. After analysing the moral faculties, I propose to show that the juxtaposition of the moral and intellectual organs, as well as the facility with which the two combine, establishes the conclusion that NATURAL SCIENCE and NATURAL THEOLOGY, should be taught and learned TOGETHER; that the latter should form a part of early education, that the noxious dogmas and superstitions of modern religious sectarianisms, should be *rooted up*, and the study of the *works of God*, and of *God in his works* substituted in their stead—that modern religion is sadly defective in not being founded in, and built upon *natral* religion and that natural theology and the character of God as drawn from his works, is indispensable; or rather, should *preceede* and *prepare the way* for, the teaching salvation by Christ, which is only the *superstructure* of NATURAL theology; and which *must* be founded in it. Both religion and education are sadly deficient by each standing separately, whereas they *naturally* go together, and “what God hath joined together, let not *man* put asunder.”

The studies of GEOLOGY AND ASTRONOMY come as appropriately under the faculty of Locality, as any other. We cannot

see a rock or an embankment, a mountain, a valley, a river, a stone, a mineral, without having the conviction *forced* upon us, that some most important geological changes have occurred, and continue to occur, in regard to our earth. To me, *geological* facts and observations, have always been most interesting, and, though I know little about the *science* of geology, still I observe and reflect upon all the geological *phenomena* within my reach, as I travel from place to place. Nor do I fail to put together what I see in *different* places, and to search for a *common* cause, as well as to *philosophise* upon the earlier condition of our earth, &c., &c. The various layers of earth seen on digging into an embankment, and the different strata of rocks and substances in the same rock, the different veins in rocks, the crystalizing of earths, pudding stones, conglomerated rocks, the shells often found imbedded in rocks, stones laying far above the water and yet appearing as if worn by running water, and having eddies in them, dug out by running water, petrifications of fish and animals in stone, the tracks of animals in stone, and also even imbedded in rocks, and that on the tops of mountains,* the remains of animals, often of immense size, whose race is now extinct, found imbedded deep in the earth, and often even in solid rocks—these, and innumerable kindred phenomena, one and all, teach lessons about the past, if not prognosticate future events, which man can know and should learn, and which will yet lead to some discoveries of immense utility and magnitude. I say, then, let *children and youth* be taught *geology*. As you walk with them, past a rock composed of different materials, or see an embankment having different strata and qualities of soils, pebbles, clays, &c., one above another, point them out and explain what is known or supposed of their cause; and so of other things. Whenever prac-

* A few years ago, Prof. Hitchcock, of Amherst College, discovered numerous tracks of birds as large as the ostrich, and even larger, in the paving stones of the streets of New Haven. Posterity will award immortal honor to this distinguished devotee of science; and this eminently talented expounder of geology, for his successful labors in this and other departments of science. His head is the head of a truly great man,—one in an age,—and his talents are of the very highest order, besides their being turned to the best account, and being assiduously cultivated. Prof. Edward Hitchcock will be long and gratefully remembered and honored.

ticable, take them into coal and other mines, to salt-springs, sulphur-springs, mineral-springs, (those of Saratoga included,) or into a well before it is stoned up, and thus *put them upon the track* of observation and reflection, for themselves, and you will thus "sow seed on good ground," which will take deep "root, spring up, and bring forth fruit, some thirty, some fifty, and some a hundred fold," not only of *immediate pleasure*, but also of subsequent pleasure and profit to them throughout their whole lives. Get them a hammer, and take them with you to quarries, and upon the mountains in search of minerals, (at the same time calling their attention to interesting flowers, vegetables, &c., &c., as directed under the heads of Individuality and Eventuality,) and think you that these rural rambles will not invigorate and expand both mind and body, and stimulate the intellect a hundred fold more than does "setting on a bench and saying A," or spelling "baker, cider, brewer," &c., for the hundredth time? If not, then am I no judge of the nature and operations of mind—then have I been misled both by experience and observation. I repeat what I have before said, that our schools as now conducted, are *public curses*—that they *cramp*, instead of improving, the intellect—that they *deaden and diminish* both mind and body—that they violate nearly every law of intellectual culture—that they cause the intellectual dwarfishness of mankind, and also foster all the vices by creating a dislike for study, as well as by propagating the vices of every bad scholar through the school, throughout the district, and throughout the town—that we *MUST have a change*—and that *Phrenology* will work it. This glorious science has only to be spread and studied, completely to revolutionize man civilly, politically, religiously, morally, intellectually, and physically, so that a hundred years hence, he would not be recognised as belonging to the same race. Phrenologists, remember, that, in propogating this science, you, though a mere handful, are doing more good, promoting more happiness, abolishing more vice, and sowing the seeds of virtue, more than all the lawyers, doctors, teachers, clergymen, and religionists, of all christendom, and ten years will prove it by *experiment*. Ten years will turn, and overturn these United States, till the *true* principles of this sci-

ence leaven society, till existing institutions totter on their basis, and are "rolled together and pass away as a scroll," to make way for the principles revealed by this science. A greater instrument of good to mankind, was never raised up than this same "American Phrenological Journal," and a few years will give it the influence it is destined to exert. These pages will remodel the intellectual education of children—the first step towards this great and glorious result, and the balance of this work will remodel the *government* and *moral* training of children; which alone will gain the day; and then Phrenology applied to religion, will complete the victory, and renew man *morally* as well as socially,* intellectually and physically. Mark these prophecies, and place them by the side of 1852.

I have alluded to the study of Astronomy in connexion with Locality, because the relative *position* of the heavenly bodies, at different periods, comes under this organ more appropriately than under any other; though it involves Form, to give good eye-sight; Size, to appreciate distance; Weight, to take cognizance of motion; Calculation, to do the numerical computation; Eventuality, to take cognizance of the *changes* and *motions* of the heavenly bodies; Order, to perceive their harmony—"heaven's *first law*"—Time, to calculate their positions at *past* and *future periods*; and Causality and lower Comparison, to do the requisite reasoning. Still, SPACE and *position* are the two main things concerned in Astronomy, and therefore, my remarks on this science, come appropriately under this faculty.

From the summary just given of the organs enlarged in studying Astronomy, it is self-evident that no study affords more intellectual *discipline* than that of Astronomy. It should be generally studied, —not by the scientific few, who make almanacs,—but by all classes. Nor is this impossible on account of the difficulty connected with its being too deep and abstruse. I fully believe that good practical instruction only, is necessary to enable youth, if not children, to understand and practise it sufficiently for all ordinary purposes. At least, the various *constellations* might be pointed out, and the

* My work on Matrimony, will reform man in his social and matrimonial relations.

relative positions of the principal stars, together with the motions and distances of each, &c., &c. Nor is this all: the *time* of day and night might be correctly ascertained from their motions and positions. How is it that many of our old farmers, will get up at any time of the night, and tell the hour *accurately* by the position of the stars? And “if these things be done in a green tree, what shall be done in the dry?” If these things can be learned *without* a teacher or early instruction, but from *casual* observation *alone*, what could not be obtained by beginning these observations *early*, under excellent, practical *tuition*, and *continuing* them through *life*? Even the Indians can not only tell the time of the year and the hour of the day or night, with an accuracy impossible to us, but what is more, they can predict the *weather* for days and years to come. Our Astronomical observations are exceedingly limited and inaccurate; and yet, I am fully persuaded, that we *might* be able to tell the *state of the weather* and its *changes* for *days* and *weeks*, if not an entire season, and probably *several* seasons in advance. The animals do this. Then why not man? The spider shapes her net in anticipation of the weather, and changes it before we discover a sign of a change. If the season is to be wet, the beaver builds his hut one story higher *the preceding fall*; and, if the winter is to be very severe or protracted, the squirrel lays in an extra supply of nuts; and so of many other animals. A knowledge of these things is certainly more important to man than to animals, in order that, in a wet season, he may raise more of those crops that are adapted to wet weather, and in a dry, or cold, or hot season, he may plant and sow the kinds of crops that will grow best in that season, as well as plant or sow early or late, as the season is to be early or late. Does a merciful God, who has shown so much greater care for man than for brute, supply to brute so important a knowledge which he denies to man? True, they are said to be guided by what is called *instinct*, (I call it intuition, or the *natural, intuitive* action of the phrenological faculties;) but, if man has not the instinct, he has what is better, namely, *greater powers of observation and reflection*. And in addition to this, I believe he has as much *instinct*, at least in regard to the weather, as brutes, if he would only *display* it.

But however this may be, one thing is clear, that the weather is governed by invariable *laws* of cause and effect. Every change in the weather is *caused*; and these causes, or at least most of them, are within the scope of man's observation. I remember once hearing an old farmer observe, that the character of the equinoctial storm, was a sample of all the storms of the next six months—that if that storm came off clear and cold, all the storms of the fall and winter, would clear up in the same way, and the snow and cold be abundant, and the winter severe; but, if that storm cleared off warm and muggy, all the storms of the fall and winter would end in rain, and the winter be open. I have observed this every winter since, and found this sign invariable. The equinoctial storm of September, 1841, was remarkably warm, and the winter unusually mild and open.

I have also observed that the cold snaps, as they are called, of fall and winter, continue about three days—the first day being cold, the second *very* cold, and the third, cold, but less so than either of the others, which concludes the spell. And I believe a similar principle governs the *seasons* as well as days. So also, the frosts of fall tally with this arrangement. The first night of a cold spell brings a frost, the second, a heavy one, for the season, and the third again, lighter; though, early in the season, it may not be cold enough to cause a frost the third night, nor even the first; yet the *relative* coldness will be much the same.

I do not, however, intend to point out *signs* of the weather, so much as to *illustrate* my idea that there *are* signs, which, if observed, would be of incalculable advantage to seamen, agriculturists, and indeed, to all, and that these signs should be pointed out to children, and additional ones observed. In other words, let this department of nature also be observed and studied, and all the advantages within our reach, derived from it. Many also think that the changes of the moon effect the weather, and even the feelings, as well as influence the crops. This may be, but I have never *observed* this point, and therefore only say, *look* to it.

In passing, I will add, that the study of the starry heavens has in it a certain something calculated to awaken emotions of

the sublime and the beautiful, surpassing all other studies. Thus, the rolling thunder—the forked lightning—the western sky tinged with gold as the descending sun sinks to rest—the clear, star-spangled canopy of heaven in a cloudless night—the twinkling stars rolling over your head—the northern lights pouring their radiance upon you, or rushing and roaring over your head—the pouring rain and rushing hail and snow—the immensity of space above, below, and all around you—all bespeak the power, glory, and grandeur of that Being who created them, and are in themselves calculated to fill the soul with admiration and adoration for their great and all-powerful Architect. Who can contemplate the immensity of the Universe, without bowing in worship

“ Before JEHOVAH’s awful throne ?”

Let “ Dick’s christian Philosopher,” and kindred works, be studied, and a knowledge of Astronomy become general, and man will be the better and the more happy.

In order to cultivate Locality, I observe the country through which I pass ; and, to do this the more easily, I mount the top of the stage, or promenade the deck of the steamboat as it traverses the valley and parts the hills, and catch a glimpse of hill, dale, field, and the aspect of the country as I dart past them on the Rail-Road ; but, rapid travelling affords fewer facilities for its cultivation, than proceeding more slowly. And I stop no-where, even for the night, without following a river for a few miles, or ascending a hill to obtain a prospect ; or following the shore of the ocean, or bay, or lake for miles, to see its geography, and always keep the points of the compass in my head.

I cannot forbear here expressing the hope that the dangers and expenses of travelling, will soon be diminished. Every steam-engine I see, enforces still more deeply the conviction I have long entertained, that we are on the eve of some *simple* discovery, in the application of steam, or in steam-machinery, by which the present immense consumption of fuel will be reduced ninety-nine times in every hundred, and the complication of the machines be obviated, so that they will not cost a hundredth part as much as now. I call the attention of mechanics, to this suggestion—not to the *improvement* of the

steam engine, but to its entire *remodeling*, so that the steam will emerge *directly* from the boiler upon—not the piston; for, that must be obviated—but by which it shall press *directly* upon a *revolving cylinder*, and give you the *whole* power of the steam—now not half its power is obtained—without any complication of the machinery, or danger of explosion. Then will the immense expense now attendant upon travelling, be obviated, and all the pleasure and advantages of travelling, which are very great, be enjoyed with very little loss.

The study of Phrenology affords excellent discipline to this faculty; for, every organ must be *located exactly right*. A successful Phrenologist must have it large and well disciplined. Often, on retiring from the severe labors of examining heads all day, I have felt the brain composing this organ, as it were, appear to crawl, and have a prickling sensation, and in Dec. and Jan. last, when confined with the small-pox, and threatened with the brain fever, the heat of my forehead was great, and the pain *most intense*, in Locality, Individuality, Form, Size, Eventuality, Comparison, and Benevolence; but, in Locality the *most* severe. In every other part of the body and head, the disease worked to admiration, and the pustules filled out finely, but above these organs, they refused to come to a head, and were a long time in recovering. Nor was it until this portion of my head was bathed in cold-water *for two days and nights in succession*, that the fever abated at this point, though it had subsided every where else. But more in another place, of the organs brought into exercise in the successful study and practice of Phrenology.

The study of ANATOMY, also, comes under Locality more properly than under any other organ; for, it is the *position* or LOCATION both absolute and relative, of the organs of the body, which constitutes the *first* and *main* item of this study, although their *shape* is next in order and importance. Strange as the doctrine may seem, I maintain that *children should be taught* ANATOMY, in connexion with PHYSIOLOGY; that is, that they should be taught the *locations* and *functions* of the principal organs of the body. So important a study should *not* be confined to a few physicians and literati, but should be known by *all*. All need not be *profoundly* versed in it, yet all should understand it *practically*, and in the general. Thus: put chil-

dren's fingers upon your pulse, and, as they are delighted and astonished to observe its throbbing, tell them its use, namely, the action of the heart, and then explain the position and looks of the heart, and the whole doctrine of the circulation and respiration. As you may have occasion to kill a chicken for your table, or slaughter a calf or pig, on opening it, show them the position of the heart, and the manner in which it receives and ejects the blood, and give them all the information you can concerning it. Then do the same by the lungs, liver, intestines, &c.

Then ask them what has become of the great amount of *food* they have consumed; amounting, in all, to many times their own bulk. Then explain to them the office of the stomach, its position, looks, and the whole process of digestion,* and nutrition. What will delight or benefit them more? And think you that this knowledge will not make them careful in regard to injuring their health? What will more effectually promote the vigor of the constitution than a knowledge of the laws of life and health? Compared with this, all other knowledge is utter folly; and in point of utility, "is as a drop in the bucket."

Then put their hand on the back-bone, (I ought to be *learned*, and to call it the *spinal column*; though *back-bone* is just what I mean,) and, as the person moves his body, they will see the workings of the joints. (Oh, I forget to be *classical*, I should have said *vertebræ*; although few children or adults know what *vertebræ* means; but all understand what *joints* signify.

Then clinch your fist, and show the cords or tendons of the hands and wrist, and the hardness (I mean rigidity) of the muscles of the arm, and their shortening and lengthening (contraction and relaxation) as you lift things in your hands; and show them *how* it is that this shortening of a muscle moves

* The studies of Anatomy and Physiology ought never to be separated from each other. When the *location* and appearance of an organ are studied, let its *office*, and the end in the animal economy it performs, be also studied; for, the study of each will facilitate that of the other, and each impress the other. Studying Anatomy *alone*, is like cutting up a dead man to see what a live one will do. Unite the two. Teach children the location and appearance of the several parts of the body, and at the same time teach them *what each part does*.

one of the bones of the joint over which the muscle passes, &c. Then tell them that these muscles by means of which we move, labor, &c., constitute the red flesh of all animals, and are what is usually *eaten*. Then show the workings of the bones upon each other at the joints. This can be done conveniently and beautifully when cutting up (I mean dissecting; how unaccountably unclassical I am though,) a chicken for dinner, or a hog (I mean swine; for, it is very *vulgar* to say *hog*) for salting.

Then cut open the brains of animals; (brains are very good to eat, especially for those who have but few of their own,) and show them the structure of this organ of thought and feeling—this palace of the soul—its lobes, convolutions, and connexions with the nerves of the eye, ear, spinal marrow, (or medulla oblongata, as Dr Latin would have it,)* nose, &c. &c. as well as what portions of the brains of various animals are developed in accordance with their habits and characteristics. Pursue this course during childhood and youth, and every man, woman, and child would be as familiar with the names and functions of all the organs of the body, as they are with their alphabet. These studies, besides the thrilling *interest connected* with them, will teach them how to *husband their vital resources, preserve their constitutions unimpaired through life*, and live twice as long and thrice as happily as now. For *want* of this knowledge, most children and youth, almost or quite break down their constitutions before twenty, or well nigh ruin themselves in both mind and body.

If you object that you do not *know* enough to teach all these studies, I answer, wait, and I will elsewhere tell you how, both to find the *time*, and obtain the *knowledge*, required, or else how *not to get married*.

Under the head of Locality, I cannot well forbear recommending the perusal of VOYAGES AND TRAVELS; "Stephen's Central America," is deservedly popular, but it, in common with all other travels, is sadly defective in this, that it *does not*

* I have employed some irony here and above, in order to expose what I deem the utter folly of the "*learned world*," in calling things by names which few understand. I intend to call the Phrenological organs by their English names. To write medical prescriptions in Latin, is foolish, except where all understand Latin. Away with the technicalities of science.

give the *Phrenology* of the present inhabitants, or of the relics observed. Add this, and the most interesting if not most instructive department of reading, would be *Voyages, Travels, &c., by a Phrenologist*—in connexion with the manners and customs of different nations and ages. And if my life be spared, I intend eventually to travel with a view to the preparation of such works.

ORDER.

METHOD: ARRANGEMENT, SYSTEM: having a PLACE for every thing, and every thing IN its place, so that it can be found at once: system in BUSINESS, &c.

“*Order is heaven’s first law.*”

ADAPTATION. SYSTEM, OR UNIFORMITY, pervades the whole physical world, and has stamped its impress upon every work of God. Order reigns supreme in the worlds on high, and in the earth below, producing *regularity* in both. It has arranged a place for every organ of the human body, and always puts every organ of the body in its own place, so that Locality may find them, or Comparison infer where they may be found. It puts the feet always at the end of the lower extremities instead of on the top of the head or the end of the arms, and the head on the top of the body instead of on the back, or ankles, or the wrists, and systematizes all the works and operations of nature. Indeed, without this principle of *order*, or *system* in nature, all creation would be one vast bedlam—one grand chaos of “confusion worse confounded,” without beauty, and marred in all its other qualities, but with this arrangement in nature, harmony usurps the reign of chaos, beauty is brought forth out of deformity, and all nature moves on with a systematic regularity as beautiful in itself as it is beneficial to man. But, without this faculty of order in man, adapted to this contrivance of system in things, though this quality might have existed and beautified all nature, yet man could not have perceived this beauty, or applied this contrivance to any beneficial purpose. But this principle exists in nature, and this faculty in man, and it is therefore his duty and pleasure to exercise it; and, its cultivation should form an important part of the education of children. And yet, that cultivation is scarcely once *thought of*.

Its primary office seems to be, to keep one’s *own* things in order, and, to cultivate it, let children have things of their own,

and be told and encouraged to put things in their places—to fold and lay away their garments; to put their play-things away in the places assigned them; to lay their hat or bonnet &c., in a particular spot; to lay off their clothes at night so that they could jump into them in case of fire; to have each book in its own place and keep it whole and clean; to keep their garments whole; (and parents should never allow their children to go dressed shabbily, or with holes in their garments) and to *take care* of every thing.

That business man whose accounts are not kept straight, will most assuredly fail, and that farmer who keeps his fences up, and all his farming utensils in their places, will thrive. If farmer A tells his son John to yoke up the oxen and draw any thing, if John says: “where’s the chain,” or “I dont know where the yoke is,” that is, if John does not know, without asking or looking, where to find the chain, or yoke, or hoe, or axe, or scythe, or sickle, or rake, &c., &c. down to the hammer and nails, mark it when you will, that farmer will get behind if not fail. But if John knows at once, just where to find whatever he wants to use, that farmer will prosper; for, this order facilitates despatch, and doubles the work done; whereas, disorder wastes every thing, and will ruin any farmer, much more a business man. Let parents note this; and, if they would see their children become prosperous and happy, *instil early into them, principles of order and despatch.*

And then again, how much more agreeably and happily that family lives in which every one knows just where to find any thing he wishes, and always returns it to its place when he has done using it. Disorder *spoils the temper*, as well as prevents success in business. Parents, see to it that you train your children in harmony with these important inferences.

The Society of Friends, usually have this organ large, and their women generally very large; and, they are among the most remarkably systematic and methodical people known. This doubtless contributes largely to their thrift and uniform success in business. “Go thou and do likewise;” and “teach these things to your children, and your children’s children.”

This organ, combining with Time, produces regularity in all the *habits* of its possessor, lays out the time *beforehand*, giving so many hours daily to certain things, having meals punctu-

ally, retiring and rising at given periods; and being *regular* in all the habits and affairs of life. Nothing is more promotive of *health*, and *life*, and *happiness*, as well as of peace and prosperity. Mothers should begin to inculcate this in the *cradle*. Put your children to bed at a given hour—waken them at a fixed period, and they will soon awaken of themselves; give them their breakfast, or a piece, or nurse them at stated times; have them take their naps regularly at a certain hour of the day, and so have a *time* for every thing, and every thing in its time. This course will save you a vast amount of time and trouble; be of incalculable advantage to them physically and mentally; besides forming in them a *habit* of method in every thing; and save them a great deal of peevishness and bad temper. The power of habit is great indeed; far greater than is even attributed to it. A habit, indifferent in itself, may be followed so regularly, as to become really useful. What then, may not a habit, *good* in itself, do for the physical health, and the moral and intellectual advancement, of its possessor. To every parent and teacher then, I say, *form habits*; but form *good* ones, in your children.* Do not these remarks commend themselves to every parent and teacher as immensely important, and deserving of being put into vigorous practice forthwith?

If you wish to *cultivate* your own faculty of Order, be systematic. Begin and arrange all your things, tools, papers, accounts; and, every thing, and above all, remember and *replace* your things *after* using them, which, after all, is the main thing. And you, young men, in search of a wife, see to it that you do not marry a young lady who, on returning from a walk or ride, leaves her bonnet on the bed, gloves in a chair, parasol in the corner, &c.; or, who is for ever and a day in getting *ready* to go out; for, this indicates either that she cannot *find* her things, or is slow, or else is more nice than wise. If this organ be small in yourself, you need a wife in whom it is large, to assist this defect and to aid you in cultivating it; but, if it be large in yourself, you do not wish to be *continually* annoyed or tormented with its *deficiency* in a companion. Still, that companion should not have it *over* developed; for, "*enough* is as good as a feast," and "*too much* of a good thing, is worse than nothing."

This organ, combined with Ideality, gives *neatness* of person, and attends to the *outward* man. It cuts off a long beard, lays by a soiled linen, and keeps the clothes neat and clean; and, with Approbativeness large, patronizes the tailor and mil-

* I intend ere long, to collect together, and publish the *habits* of distinguished men, and recommend to my readers to observe this point.

liner, and chases the fashions. Phrenology discards the fashions, yet requires *personal neatness*.*

Many are of opinion that this organ extends to the *mental* operations also; but I confess my conviction that its one specific function is *physical* system and arrangement. Still, I incline to the opinion that there is also an organ of *mental* order, and arrangement of *ideas*, located by the side of that of *physical* order.

SIZE.

Cognizance of BULK, MAGNITUDE, and PROPORTION: ability to judge of SIZE, LENGTH, BREADTH, HEIGHT, DEPTH, DISTANCE, the WEIGHT of things by observing their BULK, &c., &c.: judgment of ANGLES, PERPENDICULARS, DISPROPORTION, &c.: accuracy of eye in MEASURING things, &c.

ADAPTATION. The element of SIZE, or of relative MAGNITUDE, necessarily appertains to all physical substances. No material thing can exist without being relatively *large* or *small*, compared with other things. But for this element in nature, there could have been no difference between a *drop* of water and an *ocean* of water; between a *mountain* and a *mole-hill*; between a giant and a pigmy; and all conception of *big and little*, would have been inconceivable to man. And again; *with* this element in nature, though the ocean would have been larger than the rain-drop, and the mountain larger than the hillock, yet *to man*, it would all have been the same; and, he could never have distinguished his fellow-men by the size of their bodies as a whole, or any feature or portion of them. Of course, all knowledge of the relative size of the phrenological organs, would have been unknown, and Phrenology a sealed book to man. But both this element in nature, and this faculty in man, exist, and are adapted to each other; so that we are able to distinguish material things by their *size* merely; study Phrenology, and apply this faculty to thousands of the operations of life. The husbandman requires it to make his fences, rows of corn, furrows, swaths, &c. straight: the mechanic, so that he can often fit and measure things by his eye, and without a rule: the tailor, to guide his shears and needle; the artist, to perceive the *proportion* of parts in drawing, chiselling, &c. Indeed there is scarcely an occupation in life in which it is not eminently useful, and in most, it is *indispensable*. Hence, the importance of its proper *cultivation* even in *children*; and yet, who ever once *thinks* of *disciplining* or *exercising* this faculty, either in children, or in themselves, unless by mere *chance*?

The German teachers, have an excellent method of cultivating this faculty in their pupils, which will show parents, teach-

* All who know me, will say, "Physician, heal thyself." "Brush up more, and look more trim and tidy." Yes, when I've nothing more *important* to do.

ers, and all who wish to improve this faculty, *how* they can do so. It is this: the teacher takes his pupils out into the fields, woods, mountains, &c., and asks them how far it is to yonder tree, or house, or stone, or any thing else. Each pupil takes the same position, and passes his opinion, which is recorded, and then the *actual* distance is *measured*, so that each one can compare his judgment with the actual distance; and thus improve and correct his judgment as to the distance &c. Farmers can exercise this faculty in judging of the number of acres embraced in a certain enclosure; the number of bushels of grain in a certain pile, &c; drovers, butchers, &c., in judging of the *weight* of a bullock, horse, hog, &c; the carpenter, in erecting and building a house; landscape-painters and drawers, in *foreshortening*, and giving the *perspective* to the picture; portrait-painters, in making the picture the size of *life*, &c. To *improve* this faculty, *look* at things with a view to judging of, and ascertaining their qualities appertaining to this faculty.

THE STUDY OF GEOMETRY, comes as appropriately under this faculty, as under any other, though it calls nearly all the intellectual organs into exercise. This study should unquestionably form a part of *primary* education, if not even of the *plays* of children. Let even their *play-things* be so made, that they can be put together into various *geometrical-figures*, and also form the most important geometrical problems. Thus: the problem that "the squares of the sides of a rect-angle triangle, are equal to the square of the hypotenuse," may easily be solved by having blocks, say an inch square, and taking an hypotenuse of any size, say three inches. This square will be filled by *nine* of the blocks, and the other two squares will be found to hold just nine blocks, but no more; so if the hypotenuse is four, or six, or twelve, or any other number of inches, it will take just as many blocks to fill the *long* side of any triangle, as to fill the other two. By playing with geometrical blocks, they would soon become as familiar with the names of hexagon, pentagon, cone, apex, cylinder, globe, segment, prism, &c., &c., and all the various shapes that can be formed from them, as with the meaning of dinner, or bread. But plays of this character include also

CONSTRUCTIVENESS.

INGENUITY: SKILL and DEXTERITY in the use of tools: the MECHANICAL taste and talent: SLEIGHT OF HAND in making things and turning off any kind of work: ability to TINKER, MAKE, BUILD, CONSTRUCT, MANUFACTURE USE TOOLS, &c.

ADAPTATION. Man is so constituted as to require houses, garments, machinery, agricultural and other implements and instruments, &c, &c., in order even to live, much more to be happy; and, this constructing faculty adapts him to this want

or economy of his nature. In addition to this, man is emphatically a *tool-making*, and a *tool-using* animal, as well as a *working* being; and, this faculty gives him this working propensity, as well as the skill to execute most kinds of manual labor. Even the farmer and day-laborer, use this faculty in every stroke with the hoe, or axe, or scythe, and all mechanics, artists, engineers, builders, &c., employ it in every thing done with the hands or with machinery; and, other things being equal, the greater this faculty, the greater the success, and the more rapid the despatch of every kind of work.

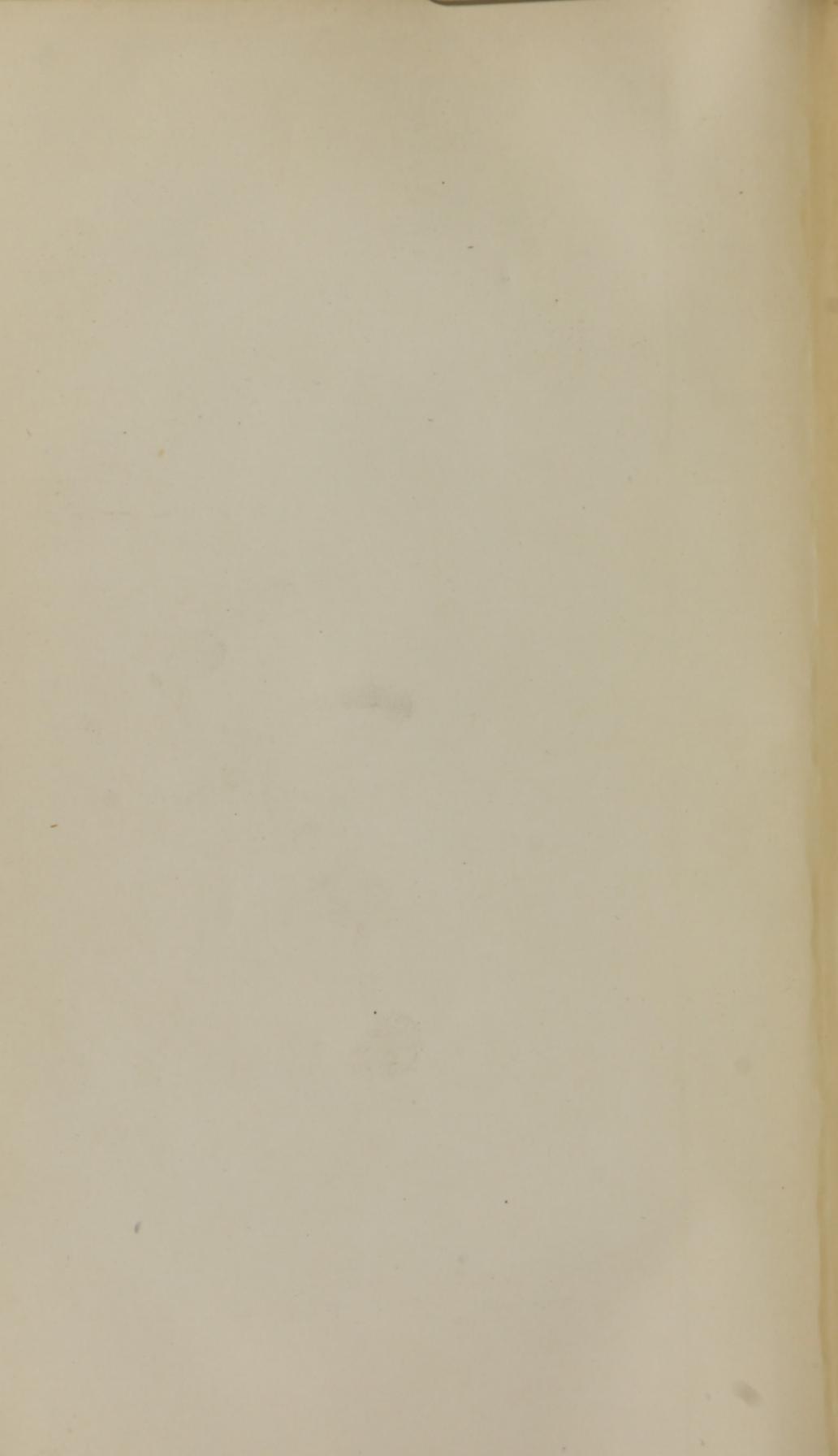
The *utility*, as well as convenience, of this faculty, is indeed great, not to the mechanic and laborer merely, but to ALL as a means both of convenience; so that they can do many a little tinkering job for themselves better than any body else can do it for them; and also as a means of *amusement* and healthy *exercise*. "By the sweat of thy brow, shalt thou eat bread all the days of thy life," and "Whosoever will not work, neither shall he eat," are written upon the constitution of man, as well as on the page of Revelation; and, in accordance with this law, he is endowed with CONSTRUCTIVENESS, or the disposition and ability to work. Let *all* children, therefore, be taught to *labor*; the rich as a means of pleasure, the poor, of support. Accordingly, this organ is large, and faculty active, in nearly all children. Let it be cultivated, not only by giving them blocks and building materials, as mentioned under Size, but also by encouraging them to make kites, wind-mills, mill-dams, water-wheels, bows and arrows, cross-guns, miniature sleds, boats, rail-roads, steam-engines, &c., and by *drawing* birds, horses, houses, landscapes, &c. Instead of this, when the boy would draw pictures on his slate, in place of ciphering, he is scolded or chastised. *Let drawing be encouraged.* I would to-day give a handsome proportion of *all I am worth*, to be able to *draw* accurately, so that I could sketch and draw, exactly to suit me, such phrenological heads and illustrations as I often meet in real life; whereas now, I am compelled to obtain but few, and then to trust to artists who do not understand Phrenology.* Let children use tools, and take your knife, and be encouraged to whittle, carve, make sleds, wagons, &c., &c., and even have a shop of their own, supplied with tools with which to tinker; and this is *doubly* important to those who are *delicate*, as a means of strengthening their muscles, and drawing the blood and energies *from* their heads *to* their muscles; and equalizing their circulation. (See Phrenology applied to Education and Self-Improvement, p. 29.)

*The importance of *combining* a knowledge of Phrenology with the arts, especially with *portrait* painting and *engraving*, is very great, and too apparent to require comment. In a few years, every artist must be a Phrenologist, or be out of employ.

The German teachers, in addition to the cultivation of Size, already mentioned, take their pupils to a machine, and require them to *notice minutely* every part of it, from the origin of the power all the way to its expenditure, and to *remember the looks*, (Form,) *position*, (Locality,) and *office* (Eventuality,) of every part, and to *DRAW them after they get back*; which furnishes a most excellent exercise of nearly all the intellectual faculties. I admire this practice, and long to see it introduced into all the schools of America.

This also gives that exercise to their *bodies* which I have all along insisted upon as so *all* important to the development of both their physical and their intellectual powers. I advocate strongly, I even *urge* upon parents and teachers, the *peripatetic* method of teaching, namely, that of *showing* and *explaining* things to children and youth *while their BODIES are in MOTION*. Who does not know that his mind is far more active while his body is in motion, and his circulation increased by exercise? I write my best pieces, after having *exercised*; and before lecturing, I walk or ride several miles *rapidly*, or chop, saw, or split wood, or do *something*, for one or two hours, to get up the *circulation*; and, then the words and ideas flow rapidly, and every one is "like a nail in a sure place." And also when I write, I usually, have a high desk, at which I stand, and a place to walk. I *walk* out an idea, and then *write* it down, and walk out another, and so on. One reason why people sleep in church is because their *bodies* are motionless, which prevents the circulation of the blood through their brain, and stupor follows. But let them stir around, and they feel wakeful and clear-headed again.

Who does not *think* more clearly, *feel* more intensely, and speak more freely and in point, when walking, or laboring, or at least, when their *bodies* are active, than when they have been sitting for *hours*? And remember that this principle applies with tenfold greater power to children, than to adults. One day of teaching such as I have described, that is having things *shown* to children while *abroad* and *on foot*, is worth a month's study in school. Aye! more, the one *deadens* the brain, and thereby *injures* the intellect, while the other powerfully *excites* the brain, and *expands* and *invigorates* the intellect. I shall elsewhere show that the relation between the body and the brain, is most *intimate*, and especially between the body and the *BASE* of the brain, in which the perceptive organs, or the organs of the memory, are located; and therefore, in teaching children, and even in cultivating the memory, *preserving the health* and keeping the *body* vigorous, are two of the *first* and most essential things to be attended to.



JUL 10 1946

