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### THE

# SCIENCE OF EDUCATION;



OR THE

# PHILOSOPHY OF HUMAN CULTURE.

BY

### JOHN OGDEN, A.M.

AUTHOR OF "ART OF TEACHING," "OUTLINES OF PEDAGOGICAL SCIENCE," ETC,

### VAN ANTWERP, BRAGG & CO. CINCINNATI AND NEW YORK.

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## PREFACE.

THE only apology we make, in offering to the public textbooks on Education and Teaching, is, that necessity has driven us to it. A combination of unforeseen events and circumstances, over which we could have but little control, and from whose pressure it was almost impossible to escape, has, as it were, forced the publication of these works. On the one hand, the entire absence of a text-book of the kind these profess to be, and the universal conviction of the necessity and practicability of such works; and on the other, the importunities and encouragements of Teachers, and of friends of Education, have led us to undertake a work which, under other circumstances, would have been regarded as the hight of presumption. Under these circumstances, we have written; but it has been with a conscious sense of insufficiency. What has been written, must, therefore, be very imperfect; but we have simply done our duty, as we best could.

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But we beg leave to say here, that we have not written for those who know a great deal more than we do on these sub jects; nor for those who may feel they have no need of help; but for those who are struggling into the light, and for those who may never, as yet, have felt the responsibilities of their labors. There are thousands of such teachers; and for these, and also for parents (for without their coöperation no ade-

#### PREFACE.

quate reform can be effected), we, with the dangers and difficulties, to which they are exposed, constantly before our eyes, have prepared the following pages. To awaken a proper sense of responsibility and duty in such, and to give them a knowledge of those technical details so necessary to their success and usefulness, are the specific objects of this book.

We have not the vanity to suppose, however, that we are an oracle to the profession; nor have we the ambition to become one; neither have we the presumption to dictate special modes, nor to offer our plans to the exclusion of all others. This would be traveling out of the line of policy, as well as of good sense. It would be downright empiricism. But we have endeavored so to present the whole subject of HUMAN CULTURE, and so to lay open and enforce the principles of right Education and Teaching, that the humblest may understand; so that by a careful study of these principles, every teacher and parent may be able rather to build up his own system, and exercise his own judgment in the special application of them, than to adopt, entirely, the measures of another; for any one can see that to attempt to develop the Teaching Talent by cumbering it with the real or supposed excellencies of special methods exclusively, would be like prescribing special modes of treatment for the cure of all diseases, irrespective of their character or the constitutional peculiarities of the patient. This would be empiricism indeed; since it would deny the privilege of individual judgment, investigation and discovery. So, to palm off upon teachers as qualifications, the plans and specialities (and too frequently the errors and whims) that may have been successful in the hands of others, without developing native ability,

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#### PREFACE.

would tend only to circumscribe the limits of improvement, and to cripple individual talent and enterprise. And on the other hand, to discuss general theories, and to enlarge upon the importance and advantage of Education, without reducing the theories to practice, would be equally objectionable.

We have tried to guard carefully against these two extremes; and we entertain the hope that the merits of the subjects presented, aside from the manner in which they are treated, will be a sufficient passport to public favor. With this hope, and claiming only that indulgence which is the common right of *mortals*, and which we know a courteous public will grant, we present this book to the candid consideration of Teachers and friends of Education.

CINCINNATI, July, 1879.

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SYNOPSIS I.



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# SCIENCE OF EDUCATION.

### CHAPTER I.

### INTRODUCTION.

THE SCIENCE OF EDUCATION is based upon immutable principles; and, so far as these principles relate to human beings, they are no less established than when they relate to other beings. They exist in the very nature of things, and are co-extensive with man's existence.

The Philosophy of Education is therefore the philosophy of man. The Science of Human Culture is that which relates to his nature, laws of growth, and modes of treatment.

Man is created with *Educational Susceptibility*, with the undeveloped or latent *capacity to know* and *to do*. His powers of feeling and motion, at birth, though in a feeble state, are, nevertheless, more perfect than those of *knowing*, *willing* and *doing*. His sentient organism constitutes the medium through which, in their nascent state, these faculties of the mind are reached.

Now, these knowing and doing capacities—for they can scarcely be called powers at this stage of their growth—would for ever remain in an undeveloped state, were either the avenues leading to them closed, or were there no instrumentalities employed to reach down to them, to excite them to activity, and to bring them out.

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This presupposes Educational Instrumentalities or Forces, as well as educational capacity, which, in their nature and constitution, must be adapted to the educational susceptibility, or want. These, again, must be brought in contact with the faculties, in order to excite them to activity and develop them. For, if man possess, originally, educational capacity undeveloped, it would be unwise, if not wicked, to suppose there are no instrumentalities or forces suited to these wants. But on the contrary, for every educational want there is an educational supply precisely suited to that want. To argue the opposite of this proposition, would not only lead to infidelity, but would charge God with folly in bringing human beings into the world, with educational wants to torment them, and a capacity to mock them.

The bringing out, the developing and cultivation of these faculties, presuppose *Modes* or *Processes*; for it would be equally unwise to suppose—there being latent *capacity*, and *forces* suited to its development that there were no right and certain modes or processes, by which these educational instrumentalities could be applied to the educational susceptibilities. It would be just as unwise as to suppose that God had created seeds for growth, and a soil every way suited to nourish them, and yet had made it impossible that the two should be brought in contact.

There are, therefore, educational susceptibilities or *capacitics*, and suited to the exact nature of these, there are educational instrumentalities or *forces*; and superadded to these, there are certain and right modes or *processes* of applying these forces to the capacities: and these plain truths shall constitute the basis of the theoretical part of this work. To render this matter plain, we assume the following propositions: 1. That there is no necessary antagonism existing between the educational capacities and their appropriate forces or supplies, judiciously administered—except that induced by disease or disordered growth. 2. That all true modes of education proceed in exact harmony with the nature, design and growth of man's faculties, intellectual, physical and moral. 3. That God has not only made it possible for us to understand the true modes of education, but that he has made it necessary, and absolutely imperative. He requires this at our hands.

In reference to the first we remark, that this is true in an intellectual and moral sense, no less than in a physical. The hungry body does not loathe the food that nourishes it: neither does the hungry mind loathe knowledge, or the food that nourishes it : nor yet does the soul abhor the love, the sympathy, the sweet affections that cherish the moral and religious nature; unless one or all of those departments of our being are laboring under the influence of disease. And here we wish to be understood that discases exist every-where within the dominion of sin; and that it is the duty and peculiar province of education to alleviate and remove them. There are, therefore, intellectual and moral diseases, as well as those of a purely physical character. The disordered state of one department of our being often induces disorder in the others. And, on the other hand, the healthy condition of the one promotes the health and growth of all the others. These diseases may be considered either as constitutional, chronic, acute or recent in their origin and formation. Indeed, we may conclude that they are all, to a great extent, of the first class; since sin has so corrupted our entire race, that the whole being, physical, intellectual and

moral, is tainted, to a greater or less extent, with the corruptions peculiar to each; and so deep-seated have become these complaints, that nothing short of Divine agencies, co-operating, it may be, with the human, can avail for their removal. What we mean, therefore, is that this depravity—for by this name it is best known —or this disease, is either aggravated or abated accord-i. g as the causes or influences operating have been bad or good,—whether we consider these as having operated in the past, or as still operating in the present, generations of men. And now it becomes a matter of the gravest importance, a question of most startling significance: can these diseases be removed or alleviated by any means, human or Divine, or by both of these agencies combined? We infer, as before intimated, that they can, since they admit of increase and decrease. The causes of difficulty removed, and a class of opposite influences at work, would surely produce opposite results. The steps by which we have descended to our present depth, retraced, would surely bring us back to the point whence we started, provided the nature of our offense did not render it impossible. This, we apprehend, is the case, so far, at least, as absolute perfection is concerned. But we have unbounded faith in the efficacy of the remedial agents, provided by the merciful Being who first gave us our powers, and commanded us to keep and perpetuate But since man failed to do this, through a them. greater than creative kindness, the same Being has provided a ransom in the atonement, so ample as to reach to the lowest depths of his depravity, renovating his moral nature, healing his moral disease, and thereby rendering it possible, at least, by a course of education and discipline, by obedience to the laws of his

being, and a strict observance of the laws of God, to retrace those steps, and regain, if not a primitive and absolute state of perfection, at least, to attain to the sublimest hights of human excellence.

Education, therefore, in its largest sense, proposes, the alleviation and removal of those diseases, so far, at least, as human instrumentality can be efficient in so difficult a case. And while we claim for it, only that it is human, and therefore subject to error, nevertheless, it should always so co-operate with Divine agencies as to produce the results anticipated. To inquire earnestly after this way, to learn the real nature and importance of a *true* education, and to enforce its claims to the highest possible place in human consideration, shall be our present object.

Our second proposition is, that all true modes of education proceed in exact harmony with the nature, design and growth of man's faculties, etc. The correctness of this position will at once be admitted; for, to admit its opposite, would be to admit the establishment of discord instead of harmony in the works of the Creator. At no stage of growth, should the educational forces and processes interfere with the natural order of development. This would be no less disastrous here than would any interference with the natural conditions, supplies, and laws of growth, in the vegetable world. All true methods of educating man, therefore, must be based upon sound philosophy; for if education, as such, has any claims to the dignified title of Science, its operations must proceed in harmony with the nature, design.and laws of growth pertaining to the subject of such education, and in accordance with the principles involved in such science. And then it follows, as a matter of necessity, that those principles and processes

are susceptible of classification and arrangement, or else education is no science: for without these conditions no science can exist. And then again, if these principles and processes can be thus classified and arranged, they can be studied and mastered; and if they can be classified, arranged, studied and mastered, they can be applied in the education of every human being not beyond the reach of education—just as definitely, though, perhaps, not with as certain results, as the principles and processes of chemistry and mathematics are studied and applied in agriculture and the arts. And, surely, the claims of this science upon our consideration are as urgent as any other, if we consider the character, the value of the materials, and the agents with which it proposes to operate.

The agriculturist, for instance, can afford to make a mistake in raising a crop; so can the mechanic, in building a ship or a house; for these appertain only to the grosser interests and perishable substances. The painter can afford to make a mistake in mingling his colors, or in giving form and expression to the features of his picture; or he can afford to see it blurred and marred, and even rent asunder by unskilled or wicked hands; for, in such case, the only loss is the waste of material and labor, and, perchance, his hopes of gain. The sculptor can afford to see his beautiful figure, upon which he has spent years of anxious toil, shattered to atoms in his presence, or sunk to the bottom of the ocean. The loss might be more than compensated by reproduction. But who will undertake to compensate for the loss of a human being, freighted with a deathless cargo of eternal interests? Who will undertake to repair the damages done to an immortal spirit? Who will undertake to remove the blurs and

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stains from the face of human character, or to stop the influences involved in error? The agriculturist, the artist, and all material workers can well afford to make mistakes; but in educating boys and girls, in forming habits and molding character, in giving direction to the energies of immortal minds, in rearing and training human beings for their duties and responsibilities here, and their destiny hereafter, we can not afford to make mistakes. These are more costly and enduring than the senseless stone, or the inanimate clod. The influences evolved, too, are of a more enduring nature; for the mistakes or the master-strokes here, unlike those upon the canvas or the marble, perpetuate themselves, and operate on other beings to all eternity. If then it becomes necessary that the agriculturist and the artist have knowledge of the character of their materials, and skill to manage them; if it becomes necessary that they have rules and definite methods by which to make application of the principles of their peculiar sciences; much more does this necessity increase, when we come to apply the same principle to that most difficult and enduring, that most artistic of all arts, the art of educating human beings.

The question seems to be settled therefore, as to the importance and necessity both of accurate and extensive knowledge upon these subjects, and of rules by which to be guided in the applications. The possibility of such rules seems the only point now.

Our third proposition reads as follows: That God has not only made it possible for us to understand the true modes of education, but that he has made it necessary, absolutely imperative.

We are at liberty, here, to draw the following conclusions: 1. That God requires us to do nothing but

what is right. Wrong is opposed to right, is the offshoot of evil, and therefore can not be included. He has commanded us further, or at least given us as a sacred precept, "To train up a child in the way he should go." This is right, and, because it is thus given, it is obligatory. It, of course, presupposes knowledge of that way, and skill to direct others in it. 2. He does not require of us any impossibilities; or, in general, what is necessary for the accomplishment of any good purpose, is possible. Right modes of education are necessary, and therefore possible. This is conclusive. God has not created a single necessity, in all his dominions, without, at least, indicating the mode of supply; and we go still further and say, that there is not a single evil existing under the sun but what has its appropriate remedy, though it may possibly be beyond the reach of man. To suppose the contrary would be to admit that God has been defeated in establishing the order of creation and providence. So that we shall be safe in concluding that whatever is right or necessary, is possible; and further, that there is both a necessity here and a possibility of supplying it.

The investigation now turns upon the nature and extent of our knowledge, and the characteristics of those principles, rules and modes of application best adapted to produce the required results.

It will be readily granted, we think, that this knowledge must be peculiar; that it must reach beyond the mere range of scholastic attainments; that no knowledge, however perfect, relating to mere common subjects, will be of any further utility here than as a mere instrument by which the education of the individual may be promoted. Hence, the popular idea of education appears to be erroneous, so far, at least, as it makes

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education consist in the mere acquisition of knowledge, without any reference to its uses as a means of accomplishing the end; for a man is not thoroughly educated until he knows how to educate other men.

Man's education, therefore, consists in the ability he acquires to use his powers of thinking, willing, and doing; and the chief uses of knowledge, aside from the enlarged scope it gives to these powers, is so to discipline, subdue and strengthen them, as that they may be able, both to control their own energies, and to operate with due force upon surrounding objects. No mere amount of knowledge, therefore, can compensate for the want of discipline and vigor, which constitute the sole object and the end of education. But the mere acquisition is best accomplished at the same time, and in connection with the best discipline; so that in true education, the two processes mutually aid each other.

"The proper study of mankind is man." To the educator, no knowledge is so important as self-knowledge, or that which relates to man and his education. It ranks highest, both as it relates to discipline and to its utility in the education of others. Indeed it is the " Scientia Scientiarum," since it relates to all sciences, and teaches their proper uses. In this sense, it is to him, though more general in its character, and intrinsic in its merits, what diagnostics and therapeutics are to the physician. Without this knowledge, the teacher would be fitly represented by an individual having a large collection of drugs and medicines, yet ignorant of their effect upon the human system. He would be unable to wield his instrumentalities skillfully in the accomplishment of the purposes for which they were intended.

But the educator should, above all other artists, know

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the nature and capacity of the powers, intellectual, physical, and moral, with which he proposes to operate. He should acquaint himself with this wonderworking machine, whose secret springs of thought and motion lie hidden from the eye of the casual observer; and whose products outvie the costliest fabrics of human art. He should not only familiarize himself with their nature, capacity, and laws of growth, but, as far as possible, with their antecedent influences; that he may judge with greater clearness and accuracy in the selection of means and modes to be employed in their subsequent treatment. But here, as in every other case where great interests are involved, however certain and reliable the means in themselves may be, such is the imperfection of human knowledge and experience, that there is a constant demand for Divine aid, to give potency to the means employed. The educator is, at best, but the weak instrument in the hands of the wise Disposer of events; and his strength for good or for evil, is usually measured by the presence or absence of this Divine guidance; and it is safe to say further, that his moral force is regulated by his ideas of God, and the estimate he places upon the observance of his precepts.

Again : so intricate and multiform are the shades of distinctions in the intellectual, moral and physical fabric; and such a diversity obtains in the capacities, both with respect to the natural endowment of children and to the influences that have been brought to bear upon them, that no two results, precisely similar, can safely be predicated of the same forces operating. The forces, therefore, must be varied to suit every individual case. And here it is proper to remark, that the forces themselves are as various as the individual wants for whose supply they were evidently intended; and it is because educators do not seek out and observe this harmony and adaptation, that so many errors are committed in the education of the young.

To adopt a particular course of treatment, and to insist upon its observance in all cases, irrespective of constitutional and acquired differences, argue a dogmatism and dullness almost unpardonable. It would surely be regarded in this light, in every other profession. It would be substantially to adopt the theory, that all minds and bodies are of the same type, have the same constitutional peculiarities and educational capacities, and have been exposed to the same antecedent causes.

No human being, therefore, possesses the wisdom, foresight or authority to legislate for the particular cases that arise in a course of education or teaching. Neither was it designed that such should be the case, even to a limited extent. Its effects would be to deprive both teacher and pupil of their appropriate individuality, and to circumscribe the limits of thought and human development.

Hence, many of the improved (?) methods, which have become the particular hobbies of some particular teachers, amount to but little more than an exposition of this error; save so far as these particular methods can be generalized, and referred to a philosophic system of education.

Hence, likewise, those particular plans for teaching the particular branches of science, however excellent in themselves, become useless when put into the hands of one unskilled in the sciences themselves, or ignorant of the nature and capacity of the mind, and of the uses of knowledge. It is like placing a sharp sword in the hands of a child, that is liable not only to injure others, but to destroy its own life.

Precisely similar effects are produced by attempting to educate teachers by filling their heads (more frequently, however, their hats) with diagrams and plans for giving instruction, while they are profoundly ignorant, both of the nature and treatment of mind and body, and of the branches to be taught, as well as the objects to be attained in teaching them. What can be expected from such a course, but failure and disgrace? And the results show that the law of cause and effect has not yet been abolished.

But all sound Theory and Practice are based upon the immutable laws of Truth. They must arise out of the fundamental principles lying at the foundation of this science of human culture, and be regulated by the laws adopted for their governance. These principles and these laws, in their essential nature, are logically and chronologically antecedent to all experience, and all theory, and all practice. Experience may develop them. but it does not constitute any essential part of them, any more than the experiments in chemistry and natural philosophy constitute parts of these sciences. The experience is all well, so far as it goes to establish any general principle, or so far as it conforms to any; and it may be useful in the discovery of new principles. In this last case, it should be placed to the credit of the discoverer: but who would think of incorporating the mere experiment or the experience of the author, as a fundamental principle in the science, instead of the fact or principle discovered?

Hence the inadequacy, so far as the purposes of a text-book are concerned, of any treatise on modes, that

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deals thus exclusively with experience, or with methods which have been successful, perchance, in the hands of particular teachers. When, therefore, these things are put forth in the shape of a science, to be learned and practiced by others, as such, the unwarrantable assumption is made, that all children require the same treatment; and that all teachers will be equally successful with the same methods, regardless of constitutional and acquired differences.

This would be as unreasonable as to suppose that all plants would grow equally well in the same soil; that all animals could subsist on the same food; that all men would succeed equally well in the same employment; or that all kinds of labor could be carried on with the same tools.

Therefore, we find that when mere experience is exhausted, the light of the so-called science expires, and leaves us, too often, to grope our way in darkness, or to lean upon a broken reed. No text-book, therefore, is worthy of confidence, that embodies nothing more than mere experience. The science of education is as different from all this, as the sun himself is different from his own rays; and the attempt to embody these things into a science, is not unlike an attempt would be to collect the sun's rays, and retain them in his absence. The nature and capacity of the subject to be operated upon, must be studied and understood, no less than the character of the forces employed, and the modes of application.

Hence again we infer, that all true Theory and Practice must be, to a very great extent, the product of the teacher's own originality.

No teacher can be eminently successful by adopting the entire plans of another. He should not—nay, he

can not wholly divest himself of his individuality. To whatever extent he does, he becomes a parasite. David could not fight in Saul's armor, for very cogent reasons. The teacher must, therefore, with the same originality and the same kind of dependence that characterized this great warrior, choose his own instruments; and in most cases, the simpler the better. He must fight in his own armor, if he expect to win. The thoughts and feelings he brings forth, must be coined in his own mint, though the ore may be brought from a foreign mine. His own native energies must stamp them, and set the seal upon them, and give the impress of originality to them; must breathe into them the breath of life, and inspire them with the living, acting, energizing *spirit*, if he would plant these thoughts deep in the sanctuary of the soul. He must shine with his own, and not with a reflected light. He must warm and invigorate with his own, not with a borrowed heat; or he becomes the mere reflector of the rays of some superior orb. Unless he thus vitalizes his teachings, all his supposed excellence will become useless in his hands; and, instead of hiding, will only serve to expose his deficiencies.

Hence all the modern improvements and plans for the education of children, however excellent in themselves, will be of little service unless they are warmed into life by the invigorating influence of intelligence. The teacher should, therefore, know the hidden springs of thought, of feeling and of will. He should understand the structure and organism of the machinery through which these act. He should acquaint himself intimately with the nature and value of the educational forces, their influence upon the subject educated; and with the modes or processes of controlling and applying these forces. He thus becomes master of them, and, consequently, of his profession. He wields them in his own peculiar way, as this, to him, is the *only right way*.

The whole Science of Human Culture, or of man and his education, therefore, admits of the following classification, and assumes the following characteristics.

First: it is both Discursive and Didactic in its nature and its application. Discursive, in that it discusses the general principles which lie at the foundation of all human growth and development. Didactic, in that it teaches the proper application of these principles in the actual education of man.

Second: it is both Theoretical and Practical. Theoretical, in that it treats of theories in reference to capacity, forces, and modes of culture. Practical, in that it puts these theories into actual operation.

Third: it is both a Science and an Art. A Science, in that it deals in scientific principles, classifying and arranging them in systematic order. It investigates the elements and principles of education, as well as the modes of treatment involved in it. An Art, in that it applies these to the actual production of the results anticipated.

Viewed in this light, as a Discursive Science, it treats, first, of the Educational Capacities, or susceptibilities of man: Secondly, of the nature and characteristics of the Educational forces, or instrumentalities employed in his education: and thirdly, of the processes or modes of applying these forces to produce the required results.

As a Didactic Art, it treats of the duties and em

ployments, as well as the modes of treatment and methods of teaching, concerned in the education of man.

These again are classified under the following heads; viz., HOME DUTIES, or employment; SCHOOL-ROOM DUTIES; and MISCELLANEOUS DUTIES. The first have reference to the early treatment and training of children, while under the parental roof; the influence this treatment has upon the education of the child at school; and indeed of all the Home influences and employments, under the following heads, viz.: Labor, in its numerous departments, physical, intellectual and moral: Recreation, in its various forms; and Rest, in its conditions and uses.

The second, or SCHOOL-ROOM DUTIES and exercises, are those in which everything relating to school-teaching, as a profession, will be examined under the following heads:

1. Preliminaries, including the organization of Schools, The opening exercises, and the assigning of lessons, with the various subdivisions which arise from the consideration of those topics.

2. Study, its objects and uses, its requisites and modes, and the means of securing study.

3. Recitation, its objects and motives, its conditions and requisites, and the methods of conducting recitations.

4. Business, its objects and designs, its necessity and requisites, and the manner of conducting it.

5. *Recreation*, its objects and ends, its requisites as to time, place and manner, and the methods or kinds best suited to the purposes.

6. Government, as it relates to the family, the school and the community; its objects and aims, its qualifications and requisites, and the means and methods of securing good government.

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### THE SCIENCE OF EDUCATION.

### SYNOPSIS II.

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			Plastic. Secretory. Alimentive. Desirons
		PHYSICAL.	of motion. Eager. Playful. Desirous of
			Lvariety. Wantlug. Restless.
	OBJECTIVE.	INTELLECTUAL.	External perception. Sensuous. Pleased with glitter. Rudlmental. Inquisitive. Curiosity combined with Instinct. Communicative. Without depth of thought.
- 7. 1.1	·	MOBAL.	Affectionate. Innocent. Unsuspecting. Con- scientious. A sense of right, but feeble to act. Passionate, often perverse. Dependent. Trust- ing. Easily incited to good or evil.
OAFAC		PHYSICAL.	Immature. Unripe strength. Awkward. Li- able to over-exertion, etc. Disposed to indulge the appetite. Imaginary wants. Liable to contract bad habits or disease.
EDUCATIONAL	TRANSITION.	INTELLECTUAL.	East of concrete or tangible knowledge. Fanciful. Pleased with light literature. Im- aginative. Fond of romance.
	•	MOBAL.	Credulous. Impulsive. Capricious. Way- ward. Formative. Hopeful. Visionary. De- slrous of an object of adoration. Ingennous, but often deceitful. Susceptible of good or evil.
		PHTBICAL.	Maturity. Strength. Power to resist or en- dure. Fixedness of habit. Ability to control the powers. Conscious manhood. Grace of person. Suavity of manner.
	SUBJECTIVE	INTELLECTUAL.	Investigative. Metaphysical. Analytical. Rational. Reflective. Meditative. Inven- tive. Argumentative. Theoretical. Premis- ing. Sagacious.
		MOBAL.	Established in belief, purpose and habit. Mod eration. A constant growth in religion, or in irreligious tendencies. Capable of the exer- cise of faith. Philanthronic. Patriotic.

### CHAPTER II.

### EDUCATIONAL CAPACITY.

WE now return to the more general characteristics of our subject, viz., "*Education as a Science;*" and shall, in the following chapter, briefly speak of the character and design of man's educational wants, physical, intellectual and moral.

### Article 1-Objective Period.

The whole cycle of human life, so far as the educational susceptibility of the individual is concerned, may be reckoned under three distinct periods. The first, or *Objective*, is that period in which the body is in its earlier stages of growth, and is consequently, delicate and tender, and possesses peculiaries never afterward realized; and in which the mind also partakes of similar peculiarities, being most impressible, and for the most part, indebted to the outer world, the objects of nature and art, for its sources of development.

The knowledge itself is characterized as objective, since it is chiefly of an external nature, and is acquired mainly through the avenues of the senses. True, there is some knowledge peculiar to this age and advancement, which would not appropriately belong to this list—such as knowledge of personal identity, cause and effect, right and wrong, etc.; but the knowledge which relates to the physical world, that which is of daily contact, and whose acquisition depends upon the researches into nature and art, is the kind of which we speak.

The moral powers, too, are in an objective state, clinging, like the vine, to some earthly support, and twining themselves about some tangible objects, as parents, brothers, sisters, friends, and sensible objects of early association, whose office it is to nourish them and lift them up from the tangible to the intangible, from the earthly to the heavenly.

It will be seen, from a close examination of this subject, that a moral and religious education is contemplated, not merely in a theoretical sense, or as a thing desirable under certain circumstances, but as absolute, certain and practical; for God has not planted these longing desires after some object of worship, after the pure, the exalted, the true, and the good, in his creatures, to mock and torment them. But he has made their gratification not only possible, but practical, and the source of the highest enjoyment: practical and even necessary, since the very wants of man's nature demand it. The soul cries out after God, the living, loving God, not God in the dead letter of doctrines and creeds, but God in nature, God in Revelation, God in the soul, as an object of love and exaltation. These wants become sometimes almost insatiable; and if they are not gratified in a manner calculated to exalt the intellectual and moral powers, the affections will go out and attach themselves to improper objects; and the rending of them loose, sometimes even rends the soul.

The religious tendencies usually commence at a much earlier period than many suppose. These desires are

among the very first manifestations of intelligence; and they are never strengthened by delay. As soon, therefore, as the child is old enough to sin, it is old enough to pray. The very first lispings of infant intelligence should be of God, home and heaven. The very first sentences should be framed in love and tender affection-not in curses, blasphemy and deceit. Some parents and teachers say, "Oh, there is time enough for religious teaching after other things are learned." "The minds of children should not be biased by doctrines and creeds." It is not necessary, at all, that they should. This would defeat true religious teaching. But would the same policy in reference to reading, geography and arithmetic be a wise one, or one likely to be adopted by any parent or teacher? Is there not truth in religion as well as in mathematics? And will that truth not produce as healthy results? Will it not expand the mind? Who would dare say, "There is time enough for intellectual culture." "Do not bias the child's mind with grammar and arithmetic." "Wait till he comes to maturity." "Wait till he can judge for himself." How soon would his judgment mature sufficiently to decide upon a course of study suitable for his wants, without previous training? Do not parents and teachers direct him in these things? It should be so in religious training. When is there a better time to commence this teaching than in youth? It is not necessary that wickedness should be the first product of the human heart, to the extent that some would have us believe. It is not necessary that a child should lie before he becomes truthful; that he should kill or steal before he learns to respect the rights of person or property; that he should cheat and defraud

before he becomes honest; that he should profane the name of God and his holy day, before he becomes reverent and conscientious; or that he should be disobedient and reckless, before he learns obedience and circumspection. But rather the reverse of this is true.

The period of youth is fraught with immense interests. If good seed is not sown in the human heart, bad will be; and in its natural and unguarded condition, these seeds will grow with a strange luxuriance. If the tender and good affections of the heart are not cultivated, their opposites will be. If these affections are not garnered by the righteous, they will be perverted; and Satan and his emissaries will have them. The seeds of morality and religion will not grow more vigorously in a soil that has been poisoned and hardened by sin. The tender plants of virtue will not bear more precious fruit, by being reared side by side with the weeds of vice, nor will their luxuriance be increased by any preoccupancy. The young affections of the human heart, offered upon the altar of religion and sanctified by Divine grace, become a sweet-smelling savor unto the Lord. The offerings that smoked upon Jewish altars, "the firstlings of the flock, the field, and of all the increase," were not more acceptable. This is the period, therefore, when direction should be given to man's moral and religious nature. It is the one most favorable for making impressions, and consequently good impressions. This constitutes the chief reason for commencing this kind of education at the very outset in life.

Again: a moral and religious education is insisted upon, on the principle that *that* education which does not affect a man's faith, or weakens rather than
strengthens it; which leaves his heart untouched, or in a worse state than it found it; which sharpens the intellect, but blunts the moral powers; which enlightens the understanding, but darkens the soul: which awakens thought, but warps the judgment; which warms the imagination, but freezes the affections; which strengthens the reason, but enfeebles the will; which quickens perception, but deadens conscience, is simply monstrous; that all true education makes man better, wiser, happier, stronger intellectually, physically and morally, just in the same ratio;that every step in knowledge should mark a corresponding advance in goodness; that the sublimest hights of human acquisition and excellence are never scaled, unless the heart soar with the head. These and sundry other reasons are surely sufficient to induce any one to give due prominence to moral and religious training in early life.

SECTION 1-PHYSICAL CAPACITY.-But to particularize in reference to the objective capacity. The · condition of the physical powers and their characteristic wants may be briefly described thus: The body itself is in a plastic or formative state. The bones are comparatively soft and flexible. The flesh is tender and delicate. The brain is spongy, rare, and thin in consistency, and the digestive and vital apparatuses are weak, and, for the most part, partake of the same general characteristics that other organs possess. The secretion of fluids in the body largely predominates over the more solid deposits. The whole structure may be fitly compared to a young and tender plant, before its vital functions have changed its juices into the more solid substances of the stock

or leaves, etc. Changes, of course, take place in the character and structure of the body, every day and every hour. These are carried on chiefly by the vital functions, so that, while in health, the deposits exceeding the removals, the body is constantly increasing and maturing. Some of the chief wants or desires are those of food, or nourishment, and sleep. Hence the being may be described as alimentive and somnolent. But these wants are only periodical. They give way, or rather make way for the desires for motion and activity, which are in themselves about as strong and imperative and necessary as the desires for food and Hence the continual restlessness of children rest. during their waking hours, and their multiplied and multiform motions and gestures. These are all necessary for their health and growth; at least, they all originate primarily in those natural desires wisely planted in children, without which they would not move a hand or foot; nor would they scarcely eat or breathe. But with them, they become eager and grasping — literal absorbents. They resemble the hungry polyp, grasping in a hundred directions for some object of gratification. It is not only amusing but instructive, to watch the motions of a young child in one of those hungry, playful moods, as it lies and kicks and strikes in all its possible directions, without any apparent design: yet the teacher or parent that can not see both order and design in all this, has yet to learn his first lessons in the science of education. At a little more advanced period, the grasping commences, and every thing within reach of those little hands is appropriated to gratify those wants. This eagerness, so common to children, to lay hold upon every object, whether harmless or hurtful,-and what

seems strange, the more injurious the more eager they seem to grasp it, and generally to convey it to the mouth-is only an additional evidence of an educational capacity, and of the necessity of furnishing that capacity with suitable educational instruments. These are but the first lessons, prompted by natural desires, to become acquainted with the properties of matter. Other animals are provided with certain instincts that prompt them either to select or to reject, and thus to guard themselves from danger. Hence they do not stand in so great need of education. But children learn by experience. They appropriate indiscriminately, and acquire knowledge by experimenting. Again: the young of all animals are playful. Children possess this propensity in a remarkable degree. This desire should not be checked too early or too severely, and surely never repressed entirely, but rather encouraged and made a means of physical culture. A rational gratification of this desire also keeps the mind in a healthy state.

The desire for novelty and change is another strong characteristic of this period. Nature has kindly furnished a vast supply of pleasing variety, and endless change of objects and scenery; and has as wisely and munificently planted in the child's nature, a desire to be brought in contact with these things. The gratification of this desire also furnishes the requisite amount of healthy exercise. This wanting and restless longing for variety, change and novelty, is a kind of semi-intellectual want, inasmuch as the mind is about an equal sharer with the body in the benefits of its gratification.

SECTION 2-INTELLECTUAL CAPACITY .- Intellectually cousidered, the human being at this age, presents a strange variety — a world of mystery—and the world into which he is introduced, is not less wonderful and mysterious to him. No wonder then that strange inconsistencies and seeming paradoxes, present themselves in the path of the educator! The intellectual powers have so many different ways of manifesting themselves in early youth, as almost to baffle description. But this inability on our part is evidently owing to the great want of extensive and accurate knowledge of the human powers, especially those of the mind, at this early period. What seems to our imperfect understanding of the entire scope of intellectual power, to be incomprehensible and some-times antagonistic to what we have come to regard as truth, when submitted to the severest scrutiny, often reveals new truths and new wonders, and astonishes us with the striking analogy of truth in all the departments of nature : so that we shall be safe in assuming that these powers are guided, universally, in their development, by fixed laws, whose boundary and scope can be sufficiently defined, and whose operations can be sufficiently limited and controlled by human agencies, to render them subservient to the purposes of education. But to give to these intellectual powers, as a whole, a characteristic description at their several periods of growth, seems to be a matter of the greatest difficulty. We shall be safe in saying, however, that, in the objective state, their early manifestations are exhibited chiefly through external perception. The eye and the ear are the chief avenues to the mind and soul. Through them impressions are first made. These are prompted to act and to

acquire by a certain desire for activity, they have in themselves, and an inquisitiveness or curiosity combined with instinct, planted in the mind as a kind of stimulator, or mental appetite. And while these prompt to action, from within, the world of form, color, sound and beauty invite from without; so that the young powers are thus, by degrees, led forth to revel in new delights. And though it may be anticipating a little, it is proper to remark here, that this mode of educating should not be interrupted throughout all the subsequent course of the pupil. No artificial stimulants can be substituted without deranging the order and harmony of the growth. The child is first led to observe, and then to think. He is first sensuous and slightly imaginative in his. essential characteristics, before he is rational and argumentative. He is pleased with form and color, and the glitter and show of external beauty, before his thoughts take a subjective turn. His appropriate knowledge, as a basis of thought, and consequently, his capacity and thoughts themselves, may be characterized as rudimental, partaking in a slight degree of whatever peculiarities they shall afterward inherit. They are just receiving shape and definite proportions. They are striking out in all directions, and seeking ever for new objects of investigation and discovery. Hence, in addition to the child's inquisitive nature, he is communicative, but without depth of thought. There is an energy, a sprightliness, about his powers at this period, which is very remarkable. This urges him on with a restless longing, ever to new fields of inquiry; until the mind gathers stores sufficient to set up a stock of thoughts and a process of thinking at home, or on its own individual responsibility.

This, it is true, is but a rude and imperfect sketch of the intellectual capacity, as we generally find it throughout this period; but it is hoped it may serve as a guide in that most interesting and profitable department of study.

SECTION 3-MORAL CAPACITY.-It has already been remarked, that the moral nature of the child at this period, is peculiarly susceptible. It is sufficient to add, perhaps, by way of particularizing, that the affections of the child bear about the same relation to his moral nature, that perception does to his intellectual. The one is the avenue to the mind, the other is the avenue to the soul; and as perceptions are antecedent to thinking and reason, so affections are, to conscience and will. If we say therefore, that he is affectional, we shall describe him in this particular. But these affections and faculties, as to their susceptibility, are both good and bad. As the eye and the ear may drink in sights and sounds erroneous and false in themselves, and thus leave erroneous impressions upon the intellectual faculties; so may the affections, even from the same and other sources, become corrupted, and thus carry mildew and moral death into the very soul.

The child is comparatively innocent—entirely so, antecedent to any actual transgression—and his subsequent guilt is usually measured both by his natural disposition or capacity for sin, and by the advantages (if they may be termed such) he has enjoyed for cultivating it. Ilis actual transgression is therefore, to a great extent, the product of mismanagement.

He is also unsuspecting. Not having been trained in the hypocritical practices of maturer guilt, he is

therefore, at first, easily imposed upon. But he soon learns, and usually becomes an apt scholar in deception. He is likewise conscientious, having a sense of right and wrong, but feeble to act. This sense is easily shocked, at this period, and it too often becomes somewhat paralyzed, which is generally the first step in the hardening process which follows. It can not be denied also that the child is passionate and often perverse. This is usually more observable in children of a sensitive nature, than those of a dull and morose disposition; hence due allowances should There is a natural dependence, however, in be made. children, which renders these proclivities more or less subject to wholesome restraints. The child is not only dependent by virtue of his natural helplessness, but he is likewise, by nature, a trusting and confiding creature. This renders him easily incited either to good or to evil. Thus, it will be seen, his moral capacity may be estimated.

## Article 2-Transition Period.

The second period may, from its nature and peculnarities, be denominated the transition period, since the mind and body, during this period, are both supposed to be undergoing a radical change; and in all right education and growth, this change is effected simultaneously in each: for the body should grow with the mind, since the healthiest development of the one depends upon a corresponding state of the other.

This period, however, is subject to great abuse An unhealthy ripeness of both mind and body, is frequently provoked here by the fashionable follies or the age, and our modern modes of education. Children become miniature men and women before they become respectable boys and girls. The reason is, vice stimulates the mind, or, at least, some departments of it, to a precocious maturity, so that its native energies are soon exhausted, and then it ceases to expand, but assumes a kind of conceit and low cunning, which will, in a measure, account for the characteristic smartness of some of our boys and girls, who are exposed to the vices of a city life.

But the mind is not the only sufferer. The body becomes dwarfed and enfeebled under these unnatural drains upon its resources; and thus, insulted and thwarted in its natural endeavors, it ceases to grow at an early age, and assumes some of the semblances of manhood; while a healthy, full and large size is seldom attained.

This period is marked in the body by the earliest indications of change from boyhood to manhood, or from girlhood to womanhood; and in the mind, by a corresponding change in the tastes and mental habits; by a desire for a higher class of literature, or other and higher kinds of knowledge; by an ability to pursue metaphysical studies, though the physical constitute the chief media through which the transition is made.

It is that period in life when the mind is neither fully objective in its manifestations, nor yet fully subjective, but changing, as it were, from the one state to the other. It holds fast by one hand to the tangible forms upon which, in early life, it depended almost exclusively for the stimulus to action; and with the other, it reaches forward with a strange fascination to the intangible or the unknown world of thought and pure intellection, with increasing and enlarged desires, and feasts upon the newly discovered dainties of reason, abstraction, and the higher forms of thought and investigation.

It by no means follows, however, that it loses any of its objective characteristics. Its power to observe and enjoy outward forms, and to appropriate objective knowledge and beauty, is only increased by the waking up of a new world of inner life, as is evidenced by the increased interest a highly cultivated mind takes in all the operations of nature and of art. It is, in fact, not only the point at which the two worlds are joined together, but it is the link itself that unites them; the objective being instrumental chiefly in awakening the subjective, while it, in turn, is more than compensated by the additional loveliness and beauty with which the latter invests the former.

SECTION 1 - PHYSICAL CAPACITY.-The physical powers in this period may be briefly described thus. The body is generally in a state of rapid growth. There is a certain immaturity or greenness about it, which renders it susceptible to the slightest impressions. It may have the semblance of strength, but it is a flashy, unripe kind of strength, which renders the body liable to over-exertion. It lacks durability and stability. It is, for the most part, incapable of severe and protracted efforts. The movements are generally awkward ; because there are continually new spheres of action imposed upon the members, and they must become habituated to these before they can act in them with grace, ease and precision. The voice is usually broken, half inclined to the manly and to the boyish tones. There is also a strong tendency to excess or over-indulgence, since the appetite, and indeed nearly all the desires are

necessarily strong, while the judgment and will are apt, through neglect or otherwise, to be weak. There is a class-of imaginary wants, liable to spring up here, and to plead lustily for redress; but they are the mere perversions of the natural and legitimate desires. Indulgence, therefore, only aggravates them; and they beget another brood of similar character, until the unfortunate victim is haunted, as it were, by a hoard of hungry passions. Bad habits, diseases and distempers of various kinds, grow up from this state of things, to the no small annoyance of the youth who indulges too freely.

Other characteristics similar to these might be described; but they will readily be inferred from what has already been said.

SECTION 2-INTELLECTUAL CAPACITY.-The intellectual condition has been partially described. Τt is in an objecto-subjective state, in relation to its characteristic wants. It seeks concrete and tangible knowledge as a means of inducing the discrete and intangible. The literary taste is rather inaccurate and fanciful, than true and well defined. There is a special fondness for light literature, extravagant theories, and "windy" eloquence. The judgment is not entirely settled, and the understanding is immature. Even the memory is in a transition state, passing from the notice of facts to principles and theories. It grasps both classes, but it usually finds difficulty in assuming and discharging both functions entire. Hence it is not an uncommon thing for the memory, under had treatment, to become treacherous in this period, and to remain so for life. But this is by no means a necessary result. Under proper treatment, it

may all the time improve, notwithstanding it may exhibit these peculiarities as above stated.

The individual is also imaginative, and apt to become somewhat sentimental; though, this is more a moral affection than an intellectual. Hence a fondness for romance is peculiar to this period. This taste in itself, is a useful one, but liable to great abuse. It should not therefore be crushed out, but directed. By crushing it, all taste for literature is sometimes obliterated : but of this, under the head of Processes.

SECTION 3 - MORAL CAPACITY. - The moral condition at this period will scarcely need additional description. It has already been treated, in a general way, in the preceding remarks. One of its marked characteristics, however, is hopefulness. The individual is supposed to be just entering upon a new sphere. Every thing seems to wear an inviting aspect. Hence the real value of men and things is often misjudged and over-estimated. This, while it is chiefly an intellectual operation, has, like most others of a similar import, a most decided moral effect. The heart generally becomes more or less impressible, as the truthfulness or falsity of these mental impressions become more or less apparent. The individual is apt to be visionary and chimerical, yet equally susceptible to truthful impressions. The heart is comparatively tender, and the sensibilities quick and lively. The religious tendencies are strong; but the world and sensual pleasures usually invite, and the conscience and will are frequently too feeble, unless strengthened by subsequent treatment, to interpose a successful barrier. Many, therefore, fall into bad habits, here. There is, however, most unmistakably, a strong desire, on the part of most youth 4

of the age of which we are speaking, for some object of religious worship or adoration. Hence, in this respect, the young may be said to be of a religious turn; but they are usually credulous and impulsive, ready to believe almost any thing congenial to taste or inclination. They eagerly grasp at whatever dogmas or doctrines promise the largest liberty to belief, and sometimes to sensual pleasure. Hence the great importance of instilling correct religious sentiments and practices early in life; so as to anticipate these difficulties. Children are usually generous and benevolent in their impulses, at this period; and these qualities are not unfrequently associated with a capricious and wayward disposition, often whimsical and inconsistent, full of conceit and levity, sometimes, at others, proud and ambitious. But these peculiarities are seldom permanently established at this age, and hence subject to removal. The moral character is in a formative state, which will account in no small degree for these oscillations, seeming inconsistencies, and the preponderance of evil. Hence the boy, in this period, may, as it were, be both ingenuous and frank, and treacherous and deceitful: not, however, that either of these traits has become settled in all cases, but in this unsettled state both dispositions may be manifested. Girls are generally more humane and tenderhearted; while boys, whose dispositions may result not less fortunately, will manifest a degree of cruelty and barbarism absolutely astonishing. Boys usually possess the greater frankness; and girls, the greater sensibility. The first possess more will; and the latter, more affection. Both are, however, subject to great change; but more with the boys than with the girls. Girls usually mature sooner than boys, which

may in some measure account for the difference. Both may be said, however, to vary with circumstances, and to be very susceptible at this period, either to good or to evil impressions, and hence to good or evil tendencies and habits.

## Article 3-Subjective Period.

The third, or subjective period will scarcely need description, since its chief characteristics will be inferred from the account given of the other two. It is, however, that period in life when both the mind and body begin to assume their greatest strength and activity. It is the fully developed state of both; or rather that period when the various processes of manly and womanly development are most marked.

SECTION 1 — PHYSICAL CAPACITY. — This period is distinguished in the bodily and physical powers, by certain and well known characteristics — such for instance, as a general maturity; a fullness and plumpness, or roundness of form; sonorousness of voice; vigorous development of bodily strength; the power to resist and endure; fixedness of habit;—for a person at twenty-five or thirty years of age, seldom, if ever, entirely changes his habits and desires, unless some "stronger than the strong man armed" with habit, attacks, binds and easts out the former inhabitant; and even in this case, there is a constant tendency to revert to former practices.

It is further marked by ability to control the desires and appetites, as well as the motions of the body. Conscious manhood or womanhood, grace and beauty of person, suavity of manner and a general appearance of maturity of bodily power, give full indications of the entire preponderance of subjective influences and wants.

Of course, due allowance must be made in this estimate, for those who, either from natural deficiencies or acquired peculiarities, never fill these conditions. All such require additional care in order to regulate the conflicting forces.

SECTION 2—INTELLECTUAL CAPACITY.—Intellectually considered, this period exhibits some marked peculiarities. As it has been intimated, the intellectual faculties are distinguished by a state of development corresponding with the growth and maturity of the body.

The reasoning and reflective powers assume their highest forms of action. Metaphysical investigations -which seemed to the preceding periods as dry abstractions-become matters of peculiar pleasure now. The imagination, quickened into new life by these subjective beauties, walks abroad into the hitherto unknown fields of the ideal world, and gathers the materials and combinations for the richest creations of art. The understanding, ripened into perfect conceptions, takes comprehensive views of plans, theories and general principles; and dwells with increasing interest upon the useful, the true and the good. The judgment, matured in its discriminations, weighs, compares, classifies and adjusts the points and principles of argumentation. The memory, having received a bountiful supply of facts and principles, gathers them up, associates them, retains them and reproduces them at pleasure. The taste, corrected and refined by the combined action and aid of the other powers, discriminates truly in the æsthetic world, and the whole intellectual machinery moves in harmony.

SECTION 3—MORAL CAPACITY.—In a moral, religious and social capacity, the characteristics are not less apparent. There is a strength, power and stability of will, and fixedness of purpose and habit, seldom, if ever, attained in either of the other periods. The affections assume a loftier sphere, and the conscience, under proper culture, becomes a fixed principle. A moderation characterizes the desires and wishes, and controls the decisions; a toleration and forbearance for the mistakes and weaknesses of others prevail here,—all of which are almost the direct antipodes of the rabid opinions, and hasty and ill-digested decisions, peculiar to the period preceding this.

The religious tendencies and principles, under certain circumstances, are apt to be strong in this period, and they will increase with advancing years, and subsequent development of the mind, provided, in both cases, the influences have been, and are still, favorable to such growth. But on the other hand, if the influences have been adverse, whether constitutional or otherwise; and if there is no yielding up of the powers, to be controlled by the Divine agency, irreligious tendencies increase in about the same ratio; moral and religious feelings become hardened, and the tendencies are altogether toward infidelity. The man is capable, therefore, of the exercise of the largest faith in the promises of Divine revelation, or he may be the subject of the most distressing doubts, and of the blindest unbelief. He is capable of the exercise of the widest and the loftiest philanthrophy, or his sympathies may be dried and withered by the rankest selfishness. His patriotism may be of the purest and loftiest character, and flow on in the widest stream; or it may be narrowed down to the meanest and

most crooked channel of corrupt party spirit. His expanding powers may be taught to grasp the world, and his love to embrace the whole brotherhood of the race, and his affections all to center in God, the great source of every lofty aspiration; or by simple neglect or positive effort, he may turn these living streams, these springs and fountains of the soul, into the filthiest cess-pools, or streams of the dirtiest gall, or staguant marshes whose dreadful malaria shall poison and corrupt every living thing.

This gives us, at least, a partial view of the educational susceptibility or capacity of the human being, at the respective periods of development, as well as the changes to which these capacities are subject.

It is proper to remark in the conclusion of this part of the subject, that these changes, in different individuals, are not always accompanied with the same phenomena, nor do they occur at the same age; nor yet, in all cases, do the mind and body keep pace with each other, owing to constitutional differences. For to suppose this to be the case, would be, in effect, to revive the unwarrantable assumption, that individual capacity is universally the same. But it should be the object of education, so to equalize and distribute the forces as to counteract, so far as possible, any abnormal growth or precocious development of the faculties on the one hand, and disease or imbecility on the other.

For a general review of this part of the subject, viz., man's Educational Capacity, the reader is referred to the scheme, or general view, placed at the beginning of this chapter.

The matter is placed in this shape, for the convenience of the student.



# THE SCIENCE OF EDUCATION.

#### SYNOPSIS III.

		PHYSICAL.	Food. Clothing. Air. Light. Cleanliness, etc. Toys. Pictures. Playmates. Parents. Domestic animals. Trees. Fruits. Flowers.
FORCES, OR INSTRUMENTALITIES.	OBJECTIVE.	INTELLECTUAL	Color. Form. Size. Motion. Sound. Lan guage of names and emotions. Simple nar- rative. Concrete numbers.
		MORAL.	Parental love. Family and Social influences. Watchfulness. Firmness. Patience. Sym- pathy. Protection. Discipline.
	TRANSITION.	PHTSICAL.	Agricultural and Mechanical labor. Fine Arts. Gymnastics. Calisthenics. Amuse- ments. Rest. Food. Sleep, etc.
		INTELLECTUAL	Physical Science. History. Biography, etc. Language (use.) Mathematics (mixed.) Me- chanical employment. Manners.
		MORAL.	Bible lessons. Maxims. Precepts. Relig- ion. Example. Practice. Biography and History of worthy characters and events.
	SUBJECTIVE.	PHESICAL.	Some fixed occupation. Labor. Recreation. Rest. Singing. Reading
		INTELLECTUAL	Mental Science. Logic. Pnre Mathematics. Philology. Philosophy. Poetry. Art. Evi- dences of Christianity. Civil polity.
		MORAL.	Moral science. Ethics. Biblical Theology. Psychology. Natural Theology. Beligion.

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# CHAPTER III.

# EDUCATIONAL FORCES.

WE now invite the reader's attention to the examination of the educational forces or instrumentalities. as they exist in the world of matter and of mind. These forces are as numerous as the wants they were intended to supply. And here were-affirm, that there exists no want, of an educational character, which the Creator has not wisely considered and provided for. The eye, for instance, was made for the lightwith a most wonderful adaptation, too, with educational wants which light alone can supply-and light was furnished that the eye might find ample scope for exercise. The ear was made for sounds, and sounds for the ear; the lungs for the air, and air for the lungs; food for the body, and the body for food; labor for the hands, and the hands for labor. Just examine their wonderful mechanism, and then say, if you can, that they were made to be idle! The mind, too, was made for labor, for thought, for science; and the world of investigation and science was made for mind. The soul was made to love, to sympathize, to worship and adore; and God is, and man was created, that its every power might find room for expansion and perfect development. It starves, too, without these supplies, just as surely as the body starves

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without its supplies. How vain, and worse than foolish, therefore, the argument of atheists, or that which would rob man of an essential part of his being, and deprive him of his appropriate exercise!

being, and deprive him of his appropriate exercise! Thus every sense and every faculty of body, mind and soul, finds appropriate stimulants in the world of matter, or in the more occult mysteries of metaphysics. In no department of the works of the Creator, do we observe happier adaptations of means to ends, or stronger evidences of wisdom and design; and the whole creation abounds and rejoices in this marvelous harmony.

But, to return. These Educational Forces, as they are termed, embrace all the means and influences of an educational character, that are or can be brought to bear upon mind, body and soul throughout the whole period of life. Indeed, they begin with man's very existence, and are doubtless co-extensive with that existence. Those, however, that relate more immediately to his present education, will claim attention here. They may be classified according to their nature and the influence they exert, in the following general groups, viz.: Objects of nature and art; Books of science, religion and literature; Living teachers, and whatever other influences may be addressed to man's faculties, either from an external or from an internal source. All these, again, admit of the same classification, that we find in the educational capacity or susceptibility, viz. : Objective, or primary; Transition, or intermediate; and Subjective, or advanced : not, however, that these forces are necessarily or inherently so; but that they so accommodate themselves to the educational capacity of man; and so arrange themselves that every educational want, physical, intellectual and moral, is provided for, at these several periods. But, to particularize.

## Article 1-Objective Period.

It will be seen, by a brief reference to Chapter Second, Article 1, Sec. 1, that appetite, motion and kindred desires are among the earlier wants of infant man or woman. Therefore, the appropriate supplies would be food, light, air, temperature, clothing, exercise, sleep, cleanliness, etc., as administering more directly to the physical wants; and toys, pictures, playmates, parents, domestic animals-both bird and beast-trees, fruits, flowers, etc, etc., as instruments, not only of the best physical culture, at this early age, but aiding much in the intellectual and moral; since the surest and safest means of reaching these infant powers, is through the physical man. This fact must be borne in mind constantly; that whatever merit these things possess in a physical sense, they are no less valuable as a means of waking up mind and calling out the affections. Indeed, they seem to be the Divinely appointed instruments of infant education; and no attempts to abandon them, or to barter them for their artificial substitutes, should be tolerated. They need not, and indeed, they will not, displace others of a judicious character. They only fill the hiatus that too often offers an easy ingress to idleness and vice.

Of course, these supplies are constant throughout all the periods of life, the quantity and quality varied, only to suit the character of the wants. No one, for instance, would maintain, that the food and exercises best suited for the infant, or even the youth, would be best for the adult. And the same is true mainly of the other forces. The character of the want will indicate the quantity and quality of the supply.

A mere allusion to some of the chief characteristics of these forces must suffice for the present, while their peculiar fitness will be inferred from their mode of application, discussed in another place.

SECTION 1—PHYSICAL FORCES.—The food should be plain, simple and nutritious. Nature has kindly indicated its quality, as well as, in part, its quantity, in the supply she has furnished for the tender age of infancy. Whatever changes are necessary, should be made after consulting the wants of childhood—real wants, not imaginary ones. It is often the case that a false demand is created by injudicious supplies, which becomes imperious in after life.

The *light* should be the natural light, and as equally diffused as possible, throughout childrens' apartments. This seems to be indicated by the general diffusion of light throughout all the departments of nature, where plants and animals exist. The sunlight is God's light, and one of his best gifts to man. Its quality has never yet been equaled or improved by any artificial compound. It is an essential element in the healthy growth and development of plants and animals, as has been abundantly proved by experiment. Why then should we attempt to shun it, or to change its essential ingredients by any artificial means? This light may change the color of the skin slightly; but then this change should be coveted, rather than dreaded. It is the change from the pale, sickly hues of disease, or the shaded life, to that of health, vigor and hardihood.

Children should be allowed the free use of sunlight;

for nothing seems so unreasonable as to deprive them of it, or to put them on a stinted allowance, since it is nature's own bounty. What looks more healthy, and consequently beautiful, than sun-embrowned boys and girls, if they have observed the laws of health in other respects? But we pass this to notice the

Air .- This, of course, should be pure, and used freely. It, like the light, is a free gift; and no one therefore should be allowed to speculate upon it, or to deprive any one of the free use of it. It is well known also, that after being once used, for the purposes of breathing, etc., it is utterly unfit for use again, until it is purified by natural processes. It becomes poisonous. No one therefore should be compelled to use it in this condition; much less to breathe it a third or fourth time, without its being first submitted to the purifying processes. What, for instance, would be thought of a man who would poison a fountain of water, at which the whole neighborhood drank? He would not only be publicly execrated, but publicly executed. But we do a deed similar to this, when we compel our children to breathe fetid atmosphere. But much has been said on this subject, in other works.

The Temperature of the body has an important bearing upon the health. All parts should maintain nearly the same temperature; i. e., the heat should be uniformly distributed, in order to keep up healthy circulation. This brings us to notice the *clothing* This, of course, should be adapted to age, employment, climate, constitutional peculiarities, etc. For information on this subject, the reader is referred to works on physiology and hygiene. It is a remarkable fact, however, that no parts of the human body, especially in childhood and youth, need pretection more than the upper and lower extremities; and it is equally remarkable, and more strange than remarkable, that no parts are more exposed, especially at that age, when the danger from exposure is greatest. The physical and moral evils arising from this whim of fashion, are too apparent and too appalling to need exposition here. They can not, however, be too distinctly pointed out, and carefully guarded against.

physical and moral evils arising from this whim of fashion, are too apparent and too appalling to need exposition here. They can not, however, be too dis-tinctly pointed out, and carefully guarded against. *Sleep* is a necessity, and has a remarkable effect upon childhood. Without it, some, and indeed all the important functions of the living being, would cease. Its necessity and effects are scarcely less apparent in the moral and intellectual man. To be-come useful, however, it must be taken periodically, and, except in cases of infancy and early childhood, or in disease, should be taken in the absence of the or in disease, should be taken in the absence of the sun's rays from the earth. Night is the time appoint-ed to man for sleep, and the day for labor, activity and enterprise; and no attempt to change this beau-tiful order, should be tolerated. The individual, therefore, who, without good and sufficient reasons, such as named above, lies abed while the sun is shining upon his part of the world, violates a clearly implied law of God; and so does he who wantonly spends that portion of the night, designed for sleep, in labor, pleasure or dissipation. No animal except man, willingly violates this law; and none suffer its penalties so fearfully.

*Cleanliness* is so nearly allied to Godliness, that its importance can scarcely be over-estimated. It is so essential to the health and happiness of the human race, that its claims, as an educational force, will scarcely be disputed by any one; and so intimately allied is it to man's true education, that we find it keeping steady and even pace with him, throughout all his various stages of advancement. This is true no less of nations than of individuals, as will at once appear, upon a comparison of the manners and customs of some of the more enlightened nations, with those of the Chinese, or the still less fastidious Arabs. What enlightened nation, for instance, would be willing to adopt the beastly habits of the filthy Esquimau, or the South-Sea Islander? It is safe to say, therefore, that a nation's true advancement may be measured by its cleanliness: and the same is true, no less of individuals than of masses.

We have no charity, and but little patience, for that kind of education which does not improve a man's habits and general appearance; which does not refine and elevate him in his social capacity, and indeed in every other respect. But if filthiness is unpardonable anywhere, it is certainly so in the family and in the school-room, where children are forming opinions and habits for life.

Toys and Apparatus are of great service in the education of children. They are the tools with which they conduct the various operations and experiments in their miniature world, the nursery, the school room and their surroundings. They are also safe and cheap investments; for they not only afford the means of innocent amusement and healthy development, but they often save doctor-bills, and not unfrequently bills of a more exceptionable character. The school apparatus is too generally confined to the high-school, and the home apparatus to the parlor, or locked up safe from mischievous hands, whose annoyance sometimes becomes almost insufferable, in consequence of this

privation. The apparatus in many of our best highschools and colleges, costs thousands of dollars; while the primary and secondary schools, if furnished with any, can usually sum up theirs in the brief catalogue,--- "a disordered globe, a broken numeral frame, and a few antiquated maps and charts;" and in many instances, indeed, the walls of these departments are as bare as those of a prison. Now this is wrong. The primary and secondary schools, by virtue of the objective nature of their inmates, need the most apparatus, though it should differ in quality from that of the high-school. The advanced scholars, for a similar reason, are capable, for the most part, of carry-ing forward their investigations without such helps, however great the advantages of having them may be. It would by no means be wise, therefore, to diminish the apparatus in the higher departments; but it would be, to increase it in the lower; being careful, of course, to select such a variety as would suit the wants of children-such, for instance, with which they can experiment.

Pictures are no less useful than toys, since they are the representatives of objects, and thereby aid the mind in making its transfer of knowledge from the tangible to the intangible. Their chief utility, however, as instruments of physical culture, is in training the eye to trace the outlines of beauty, and the hand in imitating it. They might be classed with toys, etc., only that they are one step higher in the scale. Their use will be explained more fully under the head of "physical culture," in chapter fifth.

Playmates are almost as essential to the healthy and natural development of children, as light is to the plant. A child reared alone is deprived of a large share of those youthful sports which constitute sc essential an element in his physical culture; and if exclusively with old people, he not only assumes their habits, but the shape of the body is often modified by the unnatural influences; so that he becomes gradually, in habits and decrepitude, the aged invalid. Any attempt, therefore, to thwart nature, by furnishing old heads for young shoulders, or bringing children to maturity before they have passed through the child period, will only be accompanied with disastrous consequences. But

Parents and Teachers are indispensable to the accomplishment of all that is desirable in the physical education of the child. They are so necessary that it does not seem important that their particular functions should be pointed out here. They, however, become objects of love and veneration, as well as the instruments of instruction, protection, direction and restraint. But, as necessary as they are in these respects, it would seem that many children would fare better without them than with them; for when they scold them, and beat them, and look upon them continually with suspicion, they poison not only their minds, but interfere, in no small degree, with their physical growth. And when they pamper and indulge them, especially their appetites, they breed conceit, laziness and physical diseases. But of this, more particularly under Modes of Culture.

Domestic Animals, both birds and beasts, are the delight of children, and usually afford them their first lessons in natural history, as well as the means for their physical exercises. No one who has ever witnessed the gambols of rosy-cheeked boys and girls, with a noble Newfoundland dog, or their playful excursions with a Shetland pony, or perhaps, what is just as useful, and a good deal more common, the healthy care and labor with domestic animals on the farm, can doubt for one moment, the utility of these educational forces.

Trees, Fruits and Flowers, are usually linked with the early associations of childhood; especially when these are in a natural state; but when cultivated, their influence is scarcely less potent. They afford ample amusement for them, while their cultivation begets a love for the beautiful, at the same time that it gives physical employment and forms habits of industry. He who plants a tree is said to be a benefactor to his race; but children, if only allowed to indulge their tastes, thus early, not only become public benefactors, but they form habits and attachments that time will never efface.

The above comprehends a brief description of some of the more important physical educational forces, peculiar to the objective period. But it will be remembered that whatever of excellence they possess in early life, they lose no essential force in subsequent periods. Their potency usually increases as the inner life becomes developed in man.

SECTION 2 — INTELLECTUAL FORCES.— Intellectually considered, the nature and characteristics of these supplies are not less varied and striking. For the objective or dawning intellect, they are thoroughly objective, and suited to its capacity: for the transition, they are not less appropriate; and in the subjective, the same mutual adaptation is very distinct. Not to admit this, would be, in effect, to call in question the

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wisdom and goodness of the Creator. To admit a part of it, and not the whole, would be to compromise a great and fundamental principle. To doubt the practicability of the application of this principle, in the education of man, involves an absurdity.

The first class of these objective forces includes all the objects and influences of nature and art that appeal to the new-born powers of the mind, more directly through the senses. All the external world, with its strange and delightful changes, is brought into requisition here. Those alluded to under physical forces are, for the most part, equally well adapted to the intellectual wants. Their intellectual force will here be shown in connection with others.

Among the first of these may be classed *Color*, with its endless variety of shadings, from the gorgeous hues of the rainbow to the pale blue sky and colorless vapor. The blushing morn, the subdued and mellow eve, the delicate penciling in flowers, and the varied tints in the plumage of birds, the pleasant shades of forest green, the meadow, the lawn, the distant mountains dressed in their somber hues,—these all speak in silent but soft, beseeching language, that stirs the feeble pulses of mind, and gives the first motions to thought and investigation. They operate with a charm upon these newly awakened powers, far excelling any of the boasted plans and brain-racking theories, too frequently adopted by modern educators.

theories, too frequently adopted by modern educators. But not only color, but *Form* or outline, as it appears in forest trees, the sloping woodlands, the winding rivers, the dancing waterfall, the glassy lake and overhanging margin, the graceful foliage, the exquisite shape of animals and plants and flowers, the graceful curves and arches that abound in works of nature and art, the abrupt outline of the precipice or the mountain, the ever changing, yet ever pleasing circling and eddying in clouds, and bodies of water,—all these convey impressions to the mind, silent, though they may be, yet so powerful that they become the most pleasing themes of contemplation in subsequent life.

And then the endless variety of Sounds, from the sighing zephyr to the rushing tornado; from the rippling of the brook to the deafening roar of the cataract; from the murmur of the halfquiet lake to the thundering crash of waves, when the storm-rent Ocean lifts up his voice; from the chirping of the cricket at the hearth-stone to the deep-toned thunder, the lowing herds, the animated voice of pleasure and the hum of business; the singing of birds and the sweet strains of music, all move the mind's dormant energies, and wake its powers to life and activity.

And then again, *Motion*, with its thousand tropes as exhibited in the animated world, its curves and angles, its grace and ease, and beauty, and poetry—these and all the external manifestations of nature we have named, and ten thousand more, stand as so many sentinels on the outposts of science, to awaken and delight the incipient mind, and to beckon it on to drink of these pure, healthy streams. They invite the young body forth to activity, enterprise and manly development. They are nature's means for educating man. Why then should we interfere with them, when they are so obviously in accordance, not only with sound philosophy, but with our unbiased inclinations? Why should children be kept confined and shut out from all these nobler forms of loveliness, in order that

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they may be educated? Even supposing the schoolhouse or the dwelling to be passable or even elegant, does this afford any excuse for the rejection of these natural educational forces? Instead of interfering in any degree with the discipline of children, or the acquisition of knowledge, even from books and teachers, they only prepare the way by opening up every avenue of the mind, to the most wholesome discipline and the most vigorous development.

From the above it will be inferred that the natural sciences, language, and, we might add, concrete mathematics are best adapted to the wants of both body and mind at this period. Natural sciences, in their simpler form open up the way to the mind, and afford abundant activity for the body. They give knowledge of the physical universe, and acquaintance with the beauties and attractions of nature and art.

Language affords an opportunity to give expression to feeling. Its study also cultivates close observation, whereby a higher order of thought is awakened. It should, however, relate only to the simple and exact modes of expression, the beauty, richness and accuracy in description, etc.

Mathematics, or arithmetical and geometrical exercises as they relate to simple, external form and proportion, cultivate quickness of apprehension, clearness and closeness of reasoning and investigation. They strengthen and prepare the mind for abstract and metaphysical research.

It must not be inferred from the above that the exercises, as they will be described in another place, are intended to usurp the place of those in common use, so far as the latter conform to sound philosophy. So far from any usurpation, or even an interruption, they only excite a laudable interest in them. A child who has been taught to observe closely, and whose faculties have been trained in this natural process, will not only possess keener perception, stronger memory, a better understanding and judgment, and a livelier imagination, but every emotion of the soul will be quickened into healthy activity. Thus an early taste for study and habits of accuracy will be formed, which will be a basis for subsequent pursuits. It is the natural order; and any methods that conflict with nature, will check the real progress of the child.

In every department of the works of the Creator, there is the most rigid economy combined with the most benevolent designs, and the happiest harmony. Man should therefore be very careful how he interferes with these.

SECTION 3 — MORAL FORCES. — The instruments of man's moral and religious culture next claim attention. This department of his education, no less than all others, is dependent upon antecedent causes, subject, for the most part, to his own control. Among the first and foremost of these forces, for the objective period, may be placed Parental Love, and the family and social influences.

The family seems to be not only the first compact or association ordained by heaven, but the one into which every human being is, or ought to be, first introduced. It is the proper nursery of infant thought and infant action. It is the natural home of the child. No artificial association should be allowed to usurp its place. The parent stands by nature, and by Divine appointment, at the head of this social compact; and holds in his hands, to a greater extent than any other, the fundamental Educational Forces of the child. Especially is this true in a moral and religious sense; for whatever may be the intellectual training of the child, and to whomever committed, its moral and religious tendencies are generally controlled and guided by the home and parental influences.

Now, whatever of influence was attributed to the intellectual forces, will justly apply to the moral; for it is impossible, according to the well known laws of mind, to educate one department of man's nature truly, without appealing to all other departments. The proper education of the head will always affect the heart, and vice versa.

This truth can not be too often repeated and too carefully inculcated. It is one of the fundamental principles, associated with right education. By overlooking or disregarding it, the ancient world groped in darkness; and the modern educational world has run into the wildest vagaries and the strangest extremes.

But the truth is plain and simple, like all of God's truths. *Every intellectual force is virtually a moral force*. So intimately allied are they, that were it not for the distinctions which exist in man, as to his moral and intellectual qualities, and also, as to the moral and intellectual qualities of actions, the two forces would mutually blend.

To illustrate: the child first learns to love and obey its parents. This is but a simple act, and yet it implies an intellectual act, a moral act, and may include a physical act; but not one of them singly can be performed, in the true sense, without the other. We might as well talk of nourishing one arm at a time, or one leg, or the body without the limbs, by simply taking food into the stomach, as to talk of educating a man, and not affecting for good or ill, all the departments of his nature.

The affectional nature of the child is the first to show signs of development. It goes out, and naturally entwines itself about the parent. The manifestations may be feeble at first, like all its powers, but under proper management it soon acquires strength. The mother's soothing voice is the first sound that addresses its ear intelligently. The tender, gentle embrace, stirs the fountains of love in its soul; the latent affections are moved, and they rise up to meet and mingle with her own. How swift and how sweet the response thus given ! Here then is the educational want. Where are the supplies ? Ay: are they not at hand? Do they not exist in a mother's love, a father's care, and all the endearing ties of home and friends ? Now if those supplies are not cut off or poisoned—as is too frequently the case—if they are constant, and are judiciously administered, it is easy to see how the little heart might be led on, step by step, to love, to trust and to obey.

But Watchfulness, Patience and Firmness are necessary ingredients in a parent's stock of forces to control and direct the growing energies of the child; watchfulness to detect the first buddings of sinful desires; for such is their deceptive nature, that they grow up sometimes under the immediate eye of the parent, and are not unfrequently fostered by fond and doting friends as indications of smartness. At other times they manifest themselves in outbreaking vices, not less to be deplored, and seem to summon every demon to their aid. In all these forms, patience must have her perfect work. She teaches us to bear the ills of life. Much more should she teach us to bear with the waywardness of children. If their sins *are* many, the occasions and weaknesses that draw them aside, and cause them to fall, are not less numerous.

It often becomes necessary, therefore, to interpose authority; and in such cases, firmness and unyielding integrity are in great demand, in order to check the irrational desires, and to turn them into their proper channels. The child soon loses confidence in one not possessed of these qualifications, and, whatever other excellencies he may possess will be taken for less than half their real value, in consequence of the absence of these qualities. A decision once rendered, should not be changed for light causes.

Children are no less the objects of sympathy than they are themselves sympathetic. In all their weaknesses and follies, they not only need the mantle of charity to hide their seeming depravity, but they need the sympathy of their seniors; not, by any means, to encourage them in crime, but to lift them up from weakness and irresolution, to strength and determination in the various ways of duty. They need that protection from the uncharitable assaults of the world, which the home circle alone can afford. They need an asylum into which they may retreat from the storm and the tempest, with which the sky of youth is frequently overcast.

These trials may all be necessary as discipline; but, at this tender age, unless assistance or protection is at hand, the little sufferer bends too often, and sinks beneath the load, and the moral powers are bruised and broken instead of being strengthened.

Mother or teacher, stand by your little one, in those fearful hours of temptation and strife, and see that the world and the passions do not overcome him. A moral conquest here is better than the conquest of a kingdom; but a defeat may carry disaster into all the chambers of the soul.

The family and social influences, as educational forces to give direction to the moral and religious powers of the child, can not be over-estimated. The child not only learns to love his brothers and sisters, and to revere and obey his father and mother, as well as love them, but numberless occasions arise when it becomes necessary, in the little community, that the personal preferences and individual liberty of the few, must be sacrificed to the general good. Here the child learns to respect the rights of his fellows, to submit to wholesome restraints, and to render cheerful obedience to the properly constituted authorities. He thus acquires the feelings and habits of a good citizen. And what is true of the family, in this respect, is also true of the school, for it should be modeled as nearly as possible on the plan of a well regulated family. The only essential difference in the government is, that in the latter it is generalized, and on a larger seale.

But what a dark picture that family or that school presents, where all these moral forces are perverted and made to act as so many influences against the right development of the moral powers! What a repulsive sight where love is turned to hate, trust to jealousy and suspicion, watchfulness to careless indifference, firmness to vacillation and irresolution, patience to petulance, sympathy to malevolence, protection to neglect, discipline to disorder, and all the
social endearments, to so many sources of discontent and bitterness !

Man's happiness would thus be turned to misery, his social ties would be only so many clanking chains, to fret and chafe his humor, and to strew his pathway with thorns. His cup of connubial bliss would be a cup of gall; and the happiest spot on earth for man *—his own dear home*—would be a hell.

But we turn from this dark picture to consider the educational forces at another and an important period in life.

### Article 2-Transition Period.

It was a remark of a distinguished educator, while describing a course of study for high-schools, that "a hiatus occurs in the history of every human being between the ages of 11 and 15, and that this is exceedingly difficult to fill up." In this he refers doubtless to the period of which we are about to speak.

While we admit that such a period does occur, and that its characteristics are distinctly marked, yet we can not agree with the learned Dr. when he tells us that this period is *necessarily* more difficult to supply than any other. We admit that it is more liable to neglect and abuse than any other; and that many who have made shipwreck of their powers, may date their ruin back to the incidents occurring in this period; but it no more follows that this is a necessary result, than that people should die of hunger while the land abounds in plenty: or that they should fail to become educated in any case, when the means for such education are within their reach. Because men starve is no proof that there is no food, though this would be a sequence, were there none. It only proves that there is none for them; or that they have not availed themselves of its advantages. So in the case before us. Many suffer for want of proper supplies, at this period, not because there *are* no such supplies, for this would be charging God with neglect; but because these supplies are not brought within their reach. They exist in great abundance, but because of their simplicity and universality, men are apt to overlook them. They are like those common blessings whose visits are so silent, so frequent, and yet so necessary, that we forget to credit them.

SECTION 1—PHYSICAL FORCES.—In casting about for supplies for the physical wants and powers, we are apt to look beyond the real ones, and to select something artificial or foreign to their nature. Nature offers an abundant supply, and on the most reasonable terms.

We see by reference to chapter second, article 1st, that the capacity is very marked; and that these powers, in their semi-educated state, are constantly seeking employment. Activity is their essential characteristic, and in it they find their chief enjoyment. But there is great danger of excess. Hence the greater need of special direction and control. The question then recurs, what are the natural and legitimate supplies for these wants?

In addition to those enumerated in the Objective Period, it will be found necessary to introduce others, differing, not so much, perhaps, in kind, as in quantity and quality. Hence, many of those there enumerated, will be readily exchanged for others, similar in kind, but of a higher order. Thus, the toys will

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be exchanged for farming, mechanical and household utensils and implements. Playmates will become companions and friends in a truer sense; co-laborers in a higher calling.

Among the many avocations of life, no one, perhaps, is more congenial to man than Agricultural Pursuits. They are probably the first that ever engaged the attention of the race, and afforded exercise to the physical powers: and like all other institutions of Divine appointment, they are the most necessary to man's existence, and conducive to his happiness.

They offer better opportunities for full and free exercise of all his physical powers, than any others. If they have their hardships, they have likewise their rewards. If they have their exposures to inclement seasons, they have likewise their pure and free atmosphere, freighted with the odors of a thousand flowers. It is a matter of astonishment, since this employment is at once so congenial and necessary to the human race, that so many are inventing ways and means to escape from it.

The earth uncovers her broad bosom, and displays her matchless beauty of valley, plain, mountain and woodland, and says to her children, "Come, cultivate my fields, and I will pour you out a blessing, such that your garners shall not be able to contain it." "Come, eat of my pleasant fruits, my honey and butter, and drink of my wine and milk, and let your hearts be glad and rejoice, all your days." And yet men will huddle together in crowded cities, and even trea l one upon another, that they may get gain.

It would seem that the inculcation of right views upon this subject, would in time correct this abuse. Where, then, is there a better place to begin this inculcation, than in the family and in the school-room ?

Next in importance to agricultural pursuits, may be ranked the Mechanic arts and employments. These likewise seem necessary for man's subsistence: for without them, he would be unable to protect himself against the wrath of the elements, or control the forces of nature, so as to accomplish the purposes of life. Inventions and machinery, the products of genius and labor, stand among the proudest achievements of the present age; and the mechanical employments are the nurseries where this kind of genius is fostered. Labor is the means by which these achievements are wrought out.

The mechanic arts afford scope for all that is ingenious in man, while they cultivate his taste and his physical nature. This is more apparent in the subjective period than in the transition; nevertheless, it has its origin here, since the man is the boy first, and the woman is the girl before she is the matron. The same is true of the Fine Arts. They do not attain any degree of perfection here; yet they exist in an incipient state. Their uses and modes of culture will be pointed out in another place.

But "All work and no play would make Jack a dull boy." Thus philosophized "Poor Richard;" and every one will allow that his philosophy is sound. It is a well established fact that our physical organism needs the health-giving influences of Amusement; and children in particular, who have the greatest need of it, have an instinctive desire for it. It may be said, however, by some cross-grained devote of asceticism, that "So they have for many other vices." But before any thing can be made out of

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this argument, it must be shown that play is a vice, which position is untenable. The fact is, the love of rational amusement is a virtue, no less to be cultivated than the love of innocence and truth, with which it stands intimately related : and the desires for vicious indulgence are all perverted desires, often so,too, from neglect. These legitimate desires exist every-where in the animal world, especially with the young; and their rational gratification is always accompanied with pleasure. It is only when they are not properly regulated, that they become sources of mischief. Hence Gymnastic and Calisthenic exercises,\* since these are regulated plays, are best suited to the accomplishment of one of the most obvious designs of amusement, viz.: the healthy and symmetrical development of the physical powers.

And then amusement serves another important purpose. It rests the body from the fatigue of labor, and clears away the cobwebs and clouds from the mind, and lets in a bright ray of the real, living sunshine of enjoyment.

SECTION 2—INTELLECTUAL FORCES.—We come now to notice the intellectual forces, appropriate for this period.

The supposed "hiatus," alluded to in another place, has more of an existence in an intellectual sense, than in a physical. But a proper study of man, and of his educational forces, will soon discover to the inquirer

<sup>\*</sup> It should be remembered, however, that unless these last named exercises are conducted with strict reference to the objects to be attained, they are of but little service. Indeed, they are frequently very injurious, owing to excesses and wrong applications. They should, therefore, be conducted under the eye and special direction of an accomplished master.

the vast supplies that have been laid up in store for this period. So that the hiatus is more the result of our mistakes than otherwise.

The proper adjustment of the physical forces, will not only suggest the proper disposition of the intellectual ones, but will lead to a juster appreciation of such culture, and assist materially in carrying it forward.

As in the objective state, the physical world afforded the greatest amount of influence, calculated to awaken and develop the thinking powers; so in the transition, the forces are chiefly of a material character. The intellectual eyes of the learner, at this period, however, are just opening upon the immaterial world, and he stands bewildered, while he gazes upon its wonders. The physical sciences, properly pursued, lead directly to the metaphysical, just as the study of language leads to the development of thought. Indeed the physical sciences are but the initials or elements of the metaphysical. Hence they are first in order of time. All things material have antecedents, either material or immaterial; and all actions and effects produced have causes. These causes again have their antecedents, until all causes are traced back to the great First Cause of all things.

The mind passes by steps from the tangible to the intangible, from the material to the immaterial, from the simple to the more abstruse. From the wellknown, it at once sets out in pursuit of the unknown. From the effect, it travels back to the cause, and soon becomes merged in metaphysical research. At least, this is one of its routes of travel, and the one usually selected by the learner, in this period.

The physical sciences, therefore, since they abound

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in facts, offer the safest medium, through which the transition may be made. They are pleasing and attractive, and abound in the strange and beautiful. But their chief excellence lies in the fact that they are so intimately related to all the operations of daily life. We can scarcely breathe or move without bringing into requisition some of the strangest phenomena, and awakening in the mind the profoundest curiosity. The natural sciences, therefore, seem to be the Divinely appointed stepping-stones, which lead from the physical universe to that universe of mind and spirit into which the learner is introduced in his more advanced stages. A list of these sciences might here be given, were not the circumstances, under which it would be necessary to pursue them, so various, as to render such a list nothing more than an approximation.

History and Biography, likewise, hold an important place among the educational forces of this period. Their descriptive, as well as their objective, nature renders them peculiarly appropriate. There is a novelty and an interest connected with a well prepared history or biography, which perhaps do not exist in works of mere fiction. They are strangely attractive for that class of mind of which we are now speaking. Their chief excellence, however, consists in the narrative style, their simplicity and the power they possess in awakening mind, and provoking a desire to excel.

Great care should be exercised, however, in the selection of authors. An unholy ambition may be fostered here, which will lead to untold disaster. But a proper taste for the above named studies, formed in early life, would offer a strong barrier to the formation of a morbid love of fiction and light reading. It is 1.0

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not because the mind is more averse to the truth than to a lie, that this taste for morbid trash is formed. Neither is it because truth lacks any of the essential elements of attractiveness; for it is even stranger than fiction; but it results from overlooking this most obvious truth, that our education should begin with the heart, and for intellectual advancement, it should make use of natural objects first.

Language is a medium for the communication of thoughts, feelings and desires. Its manifestations commence with the commencement of being, and they can cease only when existence ceases. Viewed in this light, it becomes a science which admits of culture, and is also an educational force. To none of the sources of culture is man more indebted than to this. Its elements exist within him, and its capacity increases with the increase of knowledge.

Language has been regarded too much as merely an objective thing, an outward adorning instead of a living, acting principle, whose elements are interwoven with the very fibers of thought. There is therefore a language of thought, as well as of word and action. No other science holds precisely the same relations to man, that this one holds. It is not only his medium, means and object of culture, but it is used in the investigation of every other science, and its study should be prosecuted in connection with every other.

Serious blunders, however, are frequently committed in the use of language as an educational force. It might, with respect to its meaning, uses, and philosophy, adopt the classification selected for education in general; viz., objective, transition, and subjective. Its first office is—aside from merely making known our wants — to give names to objects, actions and qualities. The second is to arrange and combine these so as to represent the relations existing among them, and to express the ideas suggested and developed under modes of culture. The third is to investigate the properties of language itself as an abstract or metaphysical study.

This latter department is usually presented first, so far at least as any scientific use is made of it; and this is one of the blunders to which allusion is made. The child should be allowed to pass through the other periods first, and to acquire the meaning and use of words and language, before the technicalities are arrayed before him.

Mathematics is an early and constant necessity. It is the great staple of the common school. As a disciplinary study, it perhaps has few, if any equals. It is similar in some respects to language, in that it has several departments which are exactly suited to the several wants of the child. Simple numbers and counting stand among the first, and correspond to names and the meaning of words. The concrete or mixed mathematics come next, and are best adapted to the capacity of the child in the transition state. There is just enough of the objective nature about this science, here, to enable the learner, without too great an effort of abstract reasoning, to cling to it; and yet enough of the subjective nature to lift the powers up into more exalted spheres of thought. It should be borne in mind here, that elementary geometry is one of the principal and most important and appropriate branches of mathematics for this period, and even for the one preceding it.

There is another department of science which has a peculiar fitness for this period. It is, perhaps, as much a moral force as an intellectual, and as much the result of the combined action of all the sciences, as a distinct science. We speak of good manners.

This period offers peculiar advantages for teaching this science; but, in too many instances, it is neglected. There is a spurious article, sometimes used as a substitute; but this only aggravates the evil. Good manners consist in pure thinking, pure speaking, and pure acting. It is, therefore, to a great extent, under the control of the teacher and parent, and serves as a most potent instrument, in his hand, for the accomplishment of good.

SECTION 3—MORAL AND RELIGIOUS FORCES.—At no period in life are the moral powers in a more critical condition than in this. This, perhaps, is not so much because their impressibility is any greater, but because of the many counteracting influences. The period is described briefly in chapter second, article 2, section 3.

The wants here are most palpable, and the condition would be most lamentable, were there no means of supplying them. But we are not at liberty, for a moment, to believe that so gross a blunder could be committed even by a wise man, much less by a Supreme Being.

It is our business now to inquire after the moral and religious forces, as means of culture.

Whatever excellence the moral forces described in Art. 1, Sec. 3, of this chapter possess, they are all thrown into the shade, when compared with one that can now be rendered available. We mean the Bible. It is not without its force in the objective period; but its sublimer truths, as a general thing, are of such a

character, that their full force is not felt, until the mind acquires more maturity. If any one should inquire, why the Bible possesses such a power, as an educational instrument, we would reply that God made it and he made man, having a full knowledge of his capacity, and of the best educational forces. He therefore made the Bible for the very purposes for which we propose to use it, —for the moral and religious culture of youth ; and he, knowing all things from the beginning, is supposed to have a better understanding, as to what is best calculated for this purpose, than any merely human tribunal. No creeds, or confessions, or human devices, therefore, should be allowed to usurp its place. God made mind and matter. The one administers to the other. He also gave man his Revelation. The design is very obvious. Nature and revelation are designed to make man wiser, better, happier. This they do, when we allow them to act in harmony, as they were designed; and when they are properly studied and their precepts practiced.

The Bible has stood the shock of error and falsehood, the combined opposition of infidelity leagued with darkness, for four thousand years; and yet its truths shine brighter to-day than ever before. Like the oak that is buffeted by the storm, these truths have taken deeper root in the soil of the human heart, and they lift their boughs higher and higher to scatter their fruits among the nations of the earth.

It is not our purpose to enter into a discussion upon the authenticity or inspiration of the Bible. We take for granted that it is Divine in its origin, and therefore true. We admit also, that there are some truths which, from their nature and origin, must be takenespecially at this period—on trust or faith; for the powers of comprehension are too feeble, at their most exalted stage of development, to grasp the wisdom and foresight of God.

The Bible abounds in these truths. It often finds man struggling with the most difficult problems of existence and destiny. It finds him perplexed and confounded at the very threshold of science. But science and human philosophy are forever impotent to the great task of solving man's future destiny and happiness. He must needs have, therefore, a higher authority, a brighter light, and a surer pilot, an infallible guide. The Bible comes to him in these periods of doubt and uncertainty, and offers him those great moral truths, of a primal and universal nature, upon which he may rest his faith and belief with entire certainty. These become, to him, not only the basis of moral character, but a standard by which all moral truths are tested. Without such a basis, he is liable to fall a prey to every false doctrine that floats in the moral atmosphere.

The grounds for belief in such truths may at first appear weak, the light dim; but they soon grow strong, and the dim nebula is soon resolved by the telescope of faith, and reveals, to the astonished soul, stars of the first magnitude. These will light his path to more exalted conceptions and discoveries in the moral universe, until the whole firmament shall glow with a radiance before unknown.

In this period likewise, he is about making a transfer of his affections, from the objective world, to the subjective or spiritual. A thousand phantoms dance before him to lure him to doubt, and to win those affections from their legitimate sphere. The truths of the Bible step in and ask for belief, and to become a guide to the soul in this hour of solicitude. It is just as though God looked down upon the wanderer, groping his way in darkness, clinging to this thing awhile, and then to that, and said to him, "Here, child, is my hand. I know the way through this darkness." "It is light further on." "Hold to my hand, and you are safe." "My power is omnipotent, and there is no contingency for which I have not provided." Would it be wise to ask for evidence here, or to question his power and goodness? Because people will not believe, is the very reason they are always in the dark. Bible Lessons, therefore, are among the first and strongest educational forces; and they may be rendered available in uprooting a false belief, and of awakening, correcting and strengthening the moral powers of man.

Maxims and Precepts take a strong hold upon the mind at this period. They may be classed with the "facts," in the intellectual forces. Hence, moral truth may be readily conveyed through them. And nearly allied to these are *Biographical* and *Historical sketches*, especially when they relate to worthy characters and events. They not only gratify a thirst for the grand and heroic in action, but, when proper selections are made, they hold up worthy examples for imitation, and establish the heart in virtue.

But example alone will never make a child heroic or virtuous, any more than citing him to an example of extraordinary mathematical powers, would make him a mathematician. This may be useful as an incentive, but to make a man mathematical, he must practice mathematics. So to make a child benevolent, it is not enough to cite an example of this virtue; but to make him heroic, virtuous, or good in any sense, he must be practiced in these virtues.

Religion is a necessity growing out of the relation man sustains to his fellow man and to his God. He is therefore by nature religious, though his religion may be a curse to him. He must worship something; and the more exalted the object of his worship, the more exalted his moral powers, and indeed, all his powers. Hence it is wisdom to worship the highest possible object; and since God himself is the highest, the devotion naturally belongs to him. This is looking at the subject merely in the light of philosophy. Were we to examine it from the common standpoint, we should find the obligations vastly increased.

It is a matter of the profoundest wonder and regret, that a man should harbor in his heart any repugnance to religion. Religion welds the link severed by sin, and unites man again to his God. Who could, rationally object to this, especially after considering man's wretched condition without it, his apostasy from God, his father? Religion therefore proposes to reinstate man, and to furnish all rational supplies to his moral and religious nature.

#### Article 3-Subjective Period.

We come now to notice a new and higher class of instrumentalities for the education of man. But since these are of a more general character; and since the individual for whom they are intended is supposed here to have passed the most critical period in life, and, for the most part, from under the immediate influence of the teacher or parent,—it does not seem necessary that any thing more than a mere allusion to them be made. Man is described in Chap. II, Art. 3, as having arrived at that period when his powers are assuming their greatest strength and greatest activity. Of course their capacity and wants are changed, and they demand an additional, and somewhat different, class of forces or supplies.

SEC. 1—PHYSICAL FORCES.—Man's physical powers are more or less subject to habit; and are affected by antecedent influences. Too much importance can not, therefore, be attached to regular and periodic labor. Man needs some fixed occupation, in which his physical powers may find exercise. Unless this is provided, his energies, which were made for activity and enterprise, will be continually annoying him, and urging him into difficulty. Did parents realize this truth, they would not bring up their children in habits of idleness; neither would they fail to provide for them some fixed and regular physical employment, as well as mental, to be pursued in after life as a means of securing a livelihood. The young man who is thus provided for, is comparatively safe; while the practice, on the part of parents or others, of hoarding up money for children, and anticipating all their wants and whims, thus depriving them of the exertion necessary to secure their happiness, is only providing for them the means of self-destruction.

What was said in Art. 2, Sec. 1, on the various kinds of labor, will apply with equal force here. Too much importance can not be attached to a proper division of time: — though this subject would come more particularly under modes of culture. Man is such a creature of habit, that, having once thoroughly adopted a course of conduct, it is quite easy to adhere to it through life. If he would, therefore, merely consider the physical good, he would set aside a certain portion of his time for labor, a certain portion for recreation, and another for rest. The recreation and rest are just as necessary, in a physical sense, as the labor. In addition to these, there are certain other exercises which seem necessary. They might not at first seem to be physical forces, yet such is their influence upon health, and upon physical culture generally, that we can not help regarding them as such. We refer to audible reading and singing. These, in connection with suitable devotional exercises, as preparatory to taking rest in sleep, will be found to exert a magic influence upon the health and happiness of man, to say nothing of their moral effects.

SECTION 2-INTELLECTUAL FORCES.-The intellectual powers of man at this period are supposed to have acquired sufficient strength and vigor to grapple with the sterner truths and more occult mysteries of science. A proper pursuit of the physical sciences will have led to this result. They are the steps which lead from Nature up to her Author; and while they reveal wonders which seem too vast for the comprehension of finite minds, they are nevertheless not wanting in suggestions and results of a metaphysical character, which at once enlist the reasoning powers, and lead them to the higher walks of science. Hence Mental Sciences, in which these powers are permitted to turn their energies in upon themselves, and to trace the interesting relation between mind and matter, possess strong attractions to one well inducted into this period.

As the field of thought and investigation grows

wider and more productive, a demand for increased facilities of communication arises. *Language*, in its higher departments, therefore, as Philology, Logic and Rhetoric, is intimately associated with mental science, and affords ample supply for this demand.

The higher *Mathematics* reveal to us some of the sublimest truths in nature; while, at the same time, they afford the discipline most needed.

*Philosophy* reveals its hidden treasures, and pours light in upon the astonished and delighted sense.

Poetry and the Fine Arts correct, elevate and refine the taste, and afford ample scope for the imagination.

The reasoning powers, not content with bare assumption, seek for demonstrative evidence of the great truths of Revelation; and are delighted to find that, in *Evidences* of *Christianity*, they are all corroborated by the most conclusive testimony.

His country and his fellow men have claims upon the man. Law and Civil Polity expound the nature of these claims, and lead to a proper appreciation of his civil and political rights and obligations. Thus it will be observed that every want is provided for in this, the most exalted sphere of man's intellectual powers.

SECTION 3—MORAL FORCES.—Moral Science spreads out her truths and propositions, and invites to investigation. Ethics explains the principles that should regulate human conduct, defines man's social position, and lays down a code of laws to govern him in his actions. But whatever may be said of the value of these sciences as educational forces, the Bible is the grand text-book, both in morals and in religion. From it the excellencies of all forms of government, and of every system of true religion, have been derived At this stage of man's growth, it either becomes a stone of stumbling, a rock of offense, or a beacon light to pilot him to the skies.

Biblical and Natural Theology, Psychology, and all that relates to God or the soul, are studies in which the mind finds special pleasure, and the moral powers gather additional strength.

True, most and indeed all the last named studies afford food for the intellectual powers. This is not only true of every other science, but it is in accordance with the doctrine heretofore taught, that those sciences best calculated for the culture of the moral and religious nature are either the best in themselves, or lead to the best ones for the cultivation of the intellectual powers; and that the very best for the culture of man's moral and intellectual nature, always point with unerring certainty to those exercises best suited for the culture of the body. So that we are safe in drawing the inference that our minds, souls and bodies were made to dwell together in this state of existence without conflict, and to be united in the happiest harmony hereafter.

What a glorious truth! What a sublime view it gives of the true science of education! Into what utter insignificance all the trifling plans and half-way modes of culture sink, when compared with the *true* mode. They fade as the light of the moon or stars before the beams of the rising sun. Let us be thankful, therefore, to the gracious Giver of every good and perfect gift, that he has thus created us and all our surroundings in the most wonderful harmony, and with the most evident design of making us happy here and hereafter.

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## SYNOPSIS IV.

OBJECTIVE.	PHYSICAL.	Regularity in diet. Judicious supplies. Peri-
		dolical rest. Sleeping. Bathing, etc. Exer- cise in open air. Object lessons.
	INTELLECTUAL.	Opportunity for observation of things, stc. Ex- perimenting. Describing. Acquiring. Learn- lng to think. Numbering. Counting.
	MORAL.	Sympathizing with children in trials, etc. Commands given in firm but gentle tones. Practice of deeds to inspire confidence.
TRANSITION. 4	- PHYSICAL.	Moderate exercise in manual labor. Military drill. Culture of form. Graceful movement. Rlding. Walking, etc.
	Intellectual.	Interrogative methods of recitation. Prac- ticing. Semitopical methods of reciting. Applying. Didactic methods of reciting. Describing.
	MORAL.	Kindness in administering reproof. Practice of moral duties and obligations. Inspiring a love for the true, the beautiful, etc.
SUBJECTIVE.	- Physical.	Moderation in the pursuit of business. Labor- ing periodically. Recreating. Practice of manly sports. Physical prowess.
	Intellectual.	Topical methods of reciting. Analyzing. Di- dactic methods of reciting. Generalizing. Independent methods of reciting. Criticising.
	MORAL.	Study of Creation. Life duties. Study of anthropology. Teaching. Study cf Inspira- tion. Exercise of faith

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PROCESS, OR MODES OF CULTURE.

# CHAPTER IV.

# EPU'ATIONAL PROCESSES.

A **ENERAL** description of the educational processes is a). that will be attempted in this chapter, since the special modes have received careful consideration under the head of *School-room Duties*, in the Author's treatise on The Art of Teaching.

It is thought, however, that a brief explanation of the accompanying diagram of Processes and Modes might be of service in the following manner:

1. It would show the adaptation of means to the ends to be accomplished, throughout every department of education.

2. It would show the possibility and practicability of classification in this, as well as in any other science.

3. It would lead to a more careful examination of the subject by the teacher, and a more rigid application of these principles in the education of the young.

With this hope, we proceed at once to remark that the teacher, thus far, is supposed to have acquainted himself with the educational capacity and wants of the pupil; also with the nature and design of the educational forces and supplies; and now he is to investigate the modes of application.

While much that relates to these modes of application has, doubtless, been inferred from the discussions of the two preceding topics; nevertheless, they constitute, independently, no small share of the teacher's professional qualifications. They would fall under special didactics, were it not that they have, specifically, a theoretical character which we proceed to notice.

### Article 1-Objective Period.

By reference to chapters second and third, and by a brief comparison of Capacity and Force, it will be seen that for every rational desire or want, whether physical, intellectual or moral, there is supposed to exist an appropriate supply. This truth is so palpable and so general, that it needs no argument or illustration. But the fact we now wish to impress upon the minds of parents and teachers is, that these supplies are often misdirected, and rendered not only useless, but injurious, simply from a want of knowledge and skill in managing them. The benevolent designs of the Creator are often thus thwarted by our stupidity, and his wisdom and goodness will seem to have been expended in vain; for of what service, for instance, would food, and the materials for clothing be, if man knew not how to use them, or, knowing, if he abused them? Or of what service would be any of the countless blessings God has bestowed upon his children, if he had left them without the means of discovering their design and application? They would become curses to them, while their wants would mock and tantalize them. And scarcely less ruinous do they become when, through neglect or obstinacy, they refuse to appropriate them to their proper uses.

Is it not true, that men do actually starve in the midst of abundance, either from the want of knowledge, inclination or the means to procure supplies? But those isolated cases are by no means the ones most to be deplored. It is the improper use of these supplies and educational forces, that has filled the land with groans and suffering. These irregularities and abuses most frequently take their rise in causes least suspected by the young and inexperienced. Here again would appear the necessity for parents and teachers; and that these possess the requisite knowledge and skill, to direct the education of those committed to their care.

The education of the human being begins with the beginning of his existence; and it may not be inappropriate to say, that it will end only with his existence; or in other words, will never end.

SECTION 1-PHYEICAL PROCESSES.-The child's education is first physical, so far at least as it falls under our observation and control. The first object therefore, would be to regulate the physical forces. These, in the brute creation, are regulated, for the most part, by instinct. Not so with the human animal. His first hours are spent with those supposed to have reason and experience. Where these are wanting or defective, he always suffers. His education being first physical, or mainly so, his physical habits should first receive attention. One of the first of these, and perhaps the first, after due attention to clothing, is to regulate the child's diet. How many unreasonable desires are engendered here, and how many whims begotten, by unwisely and inconsiderately yielding to and gratifying the imaginary wants of childhood! Reason and judgment should be eyes to the passions or affections, for these latter are stoneblind. They are born blind. Were their impulses blindly followed, they would in many cases lead to the destruction of the child. These wants of childhood, real or imaginary, thus injudiciously gratified, breed new desires; and these again multiply, until the brood overruns the bounds of all reason, and the whole being becomes a mass of misery and suffering.

Mothers, and those having charge of young children, should therefore regulate their diet with regard to *frequency*, as well as to quantity and quality. The too common practice of keeping their stomachs distended to their utmost capacity, either through excessive kindness or to gratify their whims, is a fruitful source of mischief, both to body and mind. And the evils are greatly aggravated when children are allowed to indulge their appetites upon highly seasoned dishes or confectionery. Is it any wonder that children, under this regime, become fretful, passionate, stupid, filthy and diseased? The stomach and digestive apparatus stand in as great need of occasional and, we might add, periodical relaxation, as do any other physical powers.

But this subject, in detail, is one of too great length to admit of a full discussion here. It covers, in fact, a great part of the subject of hygiene. We must therefore beg the reader to consult this science for the detail upon diet, as well as upon *sleeping*, *bathing* and kindred exercises.

*Exercise* in the nursery and in the open air, is of so much importance, however, as to demand a mere passing notice. A large share of the peevishness and irritability of children, might be prevented by attending to their wants—not their whims—in this respect. Instead of feeding them on cakes and candies to keep them quiet, a better way would be, most generally, to give them healthy and appropriate exercise in the open air, which would bring into play those little muscles, bones and nerves, whose inactivity is the chief cause of the uneasiness.

Again: children are anxious to learn the names, qualities and uses of things. They must, therefore, as far as possible, be brought in contact with them; and this seems to be the chief employment and delight of young children. It affords an agreeable exercise, when properly directed, and an excellent substitute for that mischief which becomes so annoying to mothers.

This exercise might be arranged in the form of Object Lessons, in which names of objects, their qualities and uses, might be connected with the sports and amusements of the young; and this need not occupy as much of the mother's time as is usually spent in watching them, scolding them, and repairing damages committed by them.

But it must be borne in mind that in order to render any and all of these exercises and processes highly beneficial, they must be periodical, and their practice regulated and continued until the habits are formed and fixed. They thus become a kind of second nature, and proceed without any special effort. But with these hasty suggestions we leave this part of the subject, to notice briefly,

SECTION 2—INTELLECTUAL PROCESSES.—With a bare mention of a few general principles and directions illustrative of the "chart," the reader is referred to Chapter Sixth, "Intellectual Culture," for a more extended view of this subject; and to the Art of Teaching for the particular mode of study, recitation, etc.

As we have already remarked, children's first lessons are taken from their surroundings. These have been described. Their opportunities for observation, therefore, should not be circumscribed. The practice of contining the young to one apartment, not only proves very irksome to them, but deprives them of one of the chief sources of intellectual culture.

Their powers of observation are usually very active, if not accurate, and constitute the chief means of acquiring knowledge. Therefore, let their eyes feast upon the beautiful in nature and art, and their ears be saluted with their harmonies.

The next step, and the one usually associated with observation, is that of experimenting with objects for the purpose of testing their qualities and ascertaining their uses. While the objects and exercises, to which young children are exposed, should not be so numerous and diversified as to distract their minds, or weary their feeble energies, yet they should be sufficiently numerous to afford that pleasing variety which their desires for novelty rationally demand.

At this period one of the greatest necessities belonging to childhood, arises; to wit: a want of suitable terms to express the ingathered stores of observation and experiment. Language is the demand.

One of the best means of cultivating the expressive powers, is to give frequent opportunities to children to relate their little experiences, and to describe the objects and actions which have fallen under their notice, observing to correct any inaccuracies and exaggerations that may arise. The imagination, or rather the fancy, may get the advance of judgment and discretion; and, unless watched carefully, children will form the habit of falsifying, or omitting important points in narrative, without realizing the enormity of the offense.

The practice of describing frequently and accurately, is useful, not only in the manner indicated above, but also as being one of the surest and most rapid methods of acquiring. In teaching, it is always best to encourage the child to tell all it knows, as a means not only of ascertaining its capacity and advancement, but as the best mode of inducing thought. It gives comparative accuracy, point and direction to the thinking powers, and renders the acquisitions much more easy and certain.

One of the first things to be done in intellectual training, is to accelerate and facilitate the early processes of thinking. Children, in the majority of cases, have not the ability to confine their thinking powers, and therefore need this aid in their early efforts, just as the child beginning to walk, needs aid in that exercise.

Among the many obstacles to successful thinking, weakness or want of mental force is one. This weakness sometimes arises from want of development, and at other times it is constitutional inaptitude. Another obstacle is mental aberration or want of concentration, which, by the way, is a species of weakness. Another is the formation of superficial and inattentive habits.

Most of these hindrances may be regarded as a species of disease, subject, however, to the control of the master; and they must all be removed before any successful study or thinking can be done. The best method of removing them, however, is the formation of right habits. The exercises used for the cure of these weaknesses, serve to establish their opposites. Special methods for overcoming these difficulties and of establishing correct mental habits, will be described in the *Art of Teaching*, Chapter Second—STUDY.

SECTION 3-MORAL PROCESSES.-The moral treatment of children is a matter of extreme delicacy and care. A little mistake committed here often leads to great mischief. Their natures, susceptible of the slightest impression, can be molded into almost any shape the hand of the parent or teacher may chance to direct. Warm, ardent and unsuspecting, their belief and practices are subject to the almost unbounded control of their superiors. They are not, however, without their little griefs and sorrows, trials and temptations. These are not always appreciated by their elders. They are apt to be treated as trifles, and as unworthy of attention, simply because they happen to be viewed from a different, and it may be, a higher, stand-point. They, however, exist, and have upon the child the same effect that trials of a greater magnitude have upon children of a larger growth; and so with their labors and sports and other employments. These, to them, are what the gennine life-duties are to the adult, and are evidently sent before to prepare them for the sterner realities which must follow. They should therefore be treated with some consideration.

Nothing, perhaps, gives the teacher greater power over the child, either for good or for evil, than the exercise of sympathy with him in his joys or sorrows, in his labors and enterprises. We do not mean that he should descend to the same level with the child, or that he should indulge him in all or any of his whims. These he should correct. But we mean simply, that he should not disregard this educational want, but make use of it for the moral elevation of the child. The very existence of it, and the activity of these feebler moral powers, constitute the occasion for such treatment, while their neglect may lead to ruin.

treatment, while their neglect may lead to ruin. Again: children are to be controlled; but how sad the abuse of this power! They are too frequently scolded and beaten in such a manner that they lose their self-respect and self-control; and come, by-andby, to believe that they are the veriest vipers that ever crawled; and, to be consistent, they strive to be all they are taken to be. If there is one thing, in the treatment of children, that is of no possible benefit, or has not one redeeming quality; if there is one sin that is without excuse, and, for wickedness, almost without a parallel; one that is more offensive than all others,-that sin is passionate scolding. It is out of place every where. We venture the assertion that there never was an occasion, in all the education of a child, that rendered a resort to this practice necessary. It is purely gratuitous, and purely demoniac. Its effects upon the moral nature of the child are sad beyond comparison. It poisons every stream of happiness; it deadens every generous impulse; it destroys moral confidence; and discourages every high and noble aspiration. In fact, it is not only without its uses, but, for fruitful sources of evil, it is almost without any equal. Hence all commands should be given in firm but gentle tones. There are frequent occasions, however, in which it becomes necessary for the teacher to point out the shortcomings and vices of children in a very decided, and it may be, earnest manner; but can not this be done without resort to that tirade of abuse and faultfinding, which make up the sum

total of scolding? Can not all the vices, to which children are addicted, be pointed out in a calm, dispassionate, yet earnest and loving manner? If there ever was a call for calmness, it is certainly here; and if they can not thus be pointed out, it will surely aggravate them to resort to abuse.

There is yet another mode of appealing to the moral nature of children, that claims a brief notice here. We mean the practice of those deeds of truthfulness and strict honesty in their presence, that will inspire their confidence and their love for the truth. Children should never be deceived, either by word or deed. They never should hear or practice a lie. They would then learn to fear and abhor it and kindred evils. But the practice of deceit and hypocrisy in their presence, has not only a tendency to destroy their confidence in the integrity of others, but leads them to practice the same vices themselves. The occasions on which this temptation arises, are very numerous. The child, for example, is often induced to comply with the wishes of the parent or teacher, without knowing the motives and means made use of, to secure such compliance. But the probability is, that he will find out some time; and then what a low estimate will he set on moral honesty! And some, estimate will be set on moral honesty! And some, again, have come to think that deceit may be practiced with impunity, provided a desirable object may be accomplished by it. Hence they govern on the prin-ciple of craft. They deceive their children into un-willing submission, esteeming it sufficient if the thing desired is done, without taking into account the means employed. Now the manner of obedience is often of greater moment than the obedience itself, or the object accomplished by it. "Behold, to obey is

better than sacrifice, and to hearken than the fat of rams," was Samuel's righteous sentence to a faltering and disobedient king; and the sequel shows the enormity of the sin of disobedience, as well as in what it consists. It is a safe rule, therefore, to practice nothing, in the presence of children, which would have a tendency to impair their confidence in you, or which you would not be willing should appear in them, as a part of their moral character.

### Article 2-Transition Period.

We come now to notice the educational processes, appropriate to that period in life when the faculties are in a condition of change, or when the change is going on most rapidly.

The peculiarities and susceptibilities of these faculties have been briefly described under the head of "Educational Capacity," Chapter Second, Article 2; and their supplies under the head of "Educational Forces," Chapter Third, Article 2. It now remains to discuss briefly the modes of treatment, reserving the special applications for the Art of Teaching.

SECTION 1—PHYSICAL PROCESSES.—Many of the modes and exercises, prescribed for the objective period, will have their full force here, varied slightly however, to suit the nature of the wants.

Moderate exercise in manual labor, though an oldfashioned, and by some, almost forgotten practice, is nevertheless one of the surest and safest modes of securing healthy physical development, that ever was invented. Indeed, it can scarcely be said to be invented, since it always existed as a necessity. It can not therefore be laid aside without injury. We

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venture the assertion, that if this one simple practice were persistently followed, in the education of children, they would be delivered from untold woes, miseries, vices, bad habits and bad health. Idleness is the parent of vice; and vice strikes at the very root of social order and happiness. The faculties at this age—and indeed at every other—seek, yea, *demond* activity and employment. If this demand is not heeded, supplies will be sought from such quarters, and in such a manner, as to bring with them habits and diseases that will poison the very fountains of health and happiness.

The importance of labor of various kinds, as the means of securing the healthiest development of all the physical powers, has been alluded to in several places. Its objects, as an educational force, are often defeated, however, by injudicious management. To be effective, either as a profitable or as a healthy exercise, it must, for this period especially, be periodical, and not too severe or too long continued. Its purposes as an educational instrumentality, are not answered by working hard for a few days, weeks, or even months, and then refraining for as long, or even a longer time, any more than the purposes of eating and sleeping are answered by adopting a similar course with them. All the exercises should be periodical, and all the habits regulated, if we would render them useful.

The effects of too severe and long-continued labor at an early age, are most strikingly exhibited in the miserable sickly condition of children in the mines and factories of Great Britain; and many in the United States and other countries suffer from similar causes. Their powers, too heavily taxed, fail to attain their full development, but hasten into an unhealthy maturity, and as rapidly decay.

But labor alone, let it be ever so wisely arranged, does not accomplish, for the child of this age, all that is desirable. Unless the exercises are varied, there is constant danger of imposing too much on some of the powers, while others may be suffering for want of a due supply. Hence the many instances of crooked and deformed persons among the laboring classes.

For a school exercise, the Military Drill, or something similar to it, as practiced in some of our best schools, is an excellent means of correcting many of these abuses. It gives the child command over his physical powers, and promotes promptness and precision in his movements. It cultivates the erect posture and manly form, and prevents, in a measure, the formation of those slovenly and disagreeable habits, so liable to be contracted at this age.

The practice in graceful movement of the body, such as is usually secured in a calisthenium, or, where this advantage is not enjoyed, such as may be adopted in any school or family, will be found useful in furnishing to girls the advantages which the boys enjoy in the drill or gymnasium. The bodies of girls need as much active exercise as those of the boys, though differing somewhat in kind. Indeed there seems to be a greater necessity, in their case, for special arrangements, since their modes of life, and kinds of employment, do not afford them the advantages which boys have.

The practice of making the physical training of youth-as far, at least, as it relates to their bodily movements—a part of their family and school education, would not only prevent the contraction of diseases and physical suffering, but it would supersede the supposed necessity of employing a dancing-master, and the evils and miseries arising from committing this part of the education of children to the hands of those who are too frequently destitute of the first principles of sound morality.

Riding, either on horseback or otherwise, walking, rowing, etc., etc., are healthy exercises; but to be rendered most serviceable, they should be conducted under the direction of a master; since many of these physical exercises are rendered useless, and in some instances positively hurtful, for the want of proper skill in managing them. But more particular directions will be given in the Art of Teaching.

SECTION 2—INTELLECTUAL PROCESSES.—The modes of intellectual culture are so numerous and well known, that we shall only allude to a few of the more general and important principles involved in them.

They should differ from those of the objective period in the following particulars:

1. They should cover a wider field; and should address the faculties of the understanding and judgment more directly.

2. They should cultivate the habits and powers of independent thinking and acting.

3. They should cultivate the expressive powers, and originality, as they relate to descriptions and the uses of knowledge.

Hence the Interrogative, Semitopical, and Analytic methods of recitation may be used here, as well as corresponding modes of study, etc.

The first is the one most appropriate in the objective period, but should not be entirely abandoned here.

The topical method is the one most appropriate for the subjective period, since it throws all the labor of recitation, etc., upon the pupil, he being at an age when helps are unnecessary. But in the transition period, the pupil is supposed to be in a state in which he requires both the assistance of the questions in recitation, etc., and also of the topics,—the one to enable him to stand, the other to induct him into the more independent modes of investigation.

It will be remembered, however, that these principles and directions are general; and that, while they will be found true in the main, many seeming exceptions will arise.

SECTION 3—MORAL PROCESSES. — It is a well established fact that discipline is a necessary ingredient in the education of man; that without it, he would be an untamed animal, a fit associate for wild beasts and savages. His powers would be of little service to himself, or any of the race.

The period in which we are now considering man, in a moral and religious point of view, is one of decided interest. If there is one period in the education of the child, in which he needs the special guidance of mother, father or teacher, it is this. His moral powers are just now assuming that shape and direction which are to give character to the man; at the same time, they are beset on all sides by temptation, and are struggling against a host of evil influences, that break in upon them from every quarter. These unassisted powers, for the most part, are unequal to bear the severity of this rude shock, and they often fall an easy prey to vice.

There is no period, either, in which the desire to

throw off parental restraint is so strong. The boy of eleven or sixteen thinks it unmanly to obey his mother; and the little miss puts on airs that would do credit (?) to the maid of forty. But wholesome discipline will, in the majority of cases, ward off these evils, and will make use of these temptations to strengther, the moral powers. This discipline may be derived from various sources, and may apply alike to the moral, intellectual or physical powers. We propose to speak of but two sources, together with modes of administering and receiving it.

1. Parental discipline and influence.

2. That which is derived from other sources.

Obedience is an obligation due from the child to the parent, no less in this period than in the preceding one. This will be admitted by all except those who run wild upon new theories and new doctrines.

We shall not stop, therefore, to discuss either the grounds or the nature and extent of this obligation. It is enough for our purpose to know that it exists, and that it is one of the first and most important lessons to be learned by the child. There are, in a popular sense, two kinds of obedience, the voluntary and the involuntary. The voluntary is the genuine; but it often happens that we are compelled to resort to the latter as an expedient to secure the former. But it never should be relied upon. It is only a substitute, to be thrown aside whenever the genuine can be made to take its place. Hence when requests are made, orders issued or commands given (all these forms are admissible, but not all under the same circumstances), it may be necessary to resort to the latter first, in order to maintain authority; but the whole transaction, request and all, should, if possible, be repeated for the
purpose of securing the willing obedience; for that is not really obedience which is performed unwillingly. It is forced submission rather. Many mistake the means for the end, however, and satisfy themselves with mere submission, while the heart may be in a state of absolute rebellion. To leave it in that condition, is to cultivate a cowardly, morose and treacherous disposition.

What wonder then that so few obey from proper motives; or that deceit, treachery and falsehood everywhere abound, when so little genuine obedience is secured in childhood !

Kindness in administering reproof or correction is indispensable in right moral training. Like produces its like, no less in the moral world, than in the physical. The parent or teacher is apt to arouse the same spirit in the child, he manifests himself. Perhaps no greater abuse obtains any where in dealing with children than at this very place. The vindictive spirit is so apt to manifest itself, that many are incapable of administering reproof or punishment, without yielding themselves to its control. And then again, some think it not worth while to act, so long as their wrath is not kindled; and therefore, always wait until it reaches the exploding point, before they open the battery; and then, woe to the luckless wight that happens to be the object of vengeance!

Now, it is needless to say this is all wrong. It would be wrong in the management of dumb animals; much more then, in the management of children.

2. That discipline which is derived from other sources, will now claim attention. The willing and cheerful obedience, rendered in early life, the lessons of submission and privation there learned fit man for the life-struggle which awaits him in the world. They give him power to conquer his enemies, having first subdued the worst one he will be likely to meet, viz., himself, a foe, too, with whom few, if any, can grapple single handed. But if discipline be administered in kindness, though it be severe, and if we are taught that it comes from the hand of our best friend, and that it is inflicted for our good, it will not arouse those vindictive and rebellious feelings, but rather their opposites; and we can look up in meek submission and bless the hand that afflicts us.

This spirit will ease the pain of affliction, and will mitigate much of the rigors of punishment, making it, even for the present, joyous and not grievous. This is the kind of discipline that should be exercised in our families and schools, to prepare their inmates to meet these trials; for meet them they must, since they are but the common lot of humanity. Why not then prepare for them at a time when the severity of the strokes may be lightened by parent or teacher. It will be too late in most cases to begin when these days and advantages are past. "In time of peace, prepare for war," was a wise maxim given by a distinguished statesman, and which is not without its bearing upon this subject. In time of youth prepare for life; in time of life prepare for death; for it is only after this period that life's harvest is gathered, and we begin to live in earnest.

Again: the practice of moral and religious duties and obligations, as the surest means of developing moral power, is a subject of such importance, as to compel a passing notice here, though its practical bearings will be reserved for another place. We pass it therefore, with this single remark, that all the moral precepts and examples combined, and entorced with the most scrupulous care, can never equal the actual practice of these duties by the children themselves. There is a tangibility, a force, a meaning and a power about them, when practiced by the children themselves, which take right hold of the heart and habits, and make them feel what moral elevation there is in doing good. They learn from their own experience, from their own feelings, that "it is more blessed to give than to receive;" and that it is better to do a good deed, than to theorize on goodness.

Another mode of moral culture claims a word of explanation; i. e., the process of inspiring a love for the Beautiful, the True and the Good. This love of the beautiful etc., is an innate affection. It usually commences with objective beauty, and advances through all the stages, until the full development of the subjective. There is usually an exact correspondence between the outer and the inner world, between the objective and the subjective. The objective, if properly directed, leads into the subjective. The cultivation of objective beauty not only indicates the degree of subjective development, but will, when the powers are well regulated, constitute the very best and most direct means of cultivation. Thus: if a boy has been taught to love a rose, for instance, and really to appreciate the outer forms of beauty and purity, his inner nature seeks their counterparts; he will therefore more easily be taught to love the truth and the morally beautiful, since these are counterparts of the former. Ugliness and deformity are begotten of depravity, and are fit accompaniments of vice and vulgarity. Hideousness and a lie are both born of

the same parents, and are both monsters. They are inseparable companions, notwithstanding falsehood and deceit may dress themselves in angel garbs, as they most frequently do; but this only renders "their deformity more deform." They are unlovely and unloved, save by corresponding natures. But on the other hand, goodness, mercy, peace, purity, humility, honesty, integrity and every christian virtue are the legitimate offspring of all that is morally beautiful and sublime, and the inseparable associates of all that is really beautiful in nature and art. It is the, province of education to develop these forms of beauty, and to regulate the outer and inner world, so that these elements of living, loving beauty and truth, shall assimilate and form one grand and harmonious system of loveliness.

## Article 3-Subjective Period.

The Subjective Processes next claim attention. Here, as in the case of the instrumentalities, there seems to be but little necessity for special directions. The individual is supposed to be passing beyond the more immediate influence of the family and school. He is now coming forth to take his stand beside his fellows, in the battle of life; and the great problem, whether he shall lose or win, is about to be solved. He becomes a man of business; for if he is educated, there will be no margin left for inglorious case, or vile and sensual pleasure.

He is still, however, a mortal man, a physical, intellectual and moral being: and these qualities are now assuming a decided and positive character. They are not therefore, without special interest; and in order to preserve them in as perfect a state as possible,

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and to transmit them unimpaired to posterity, they demand special treatment.

SECTION 1-PHYSICAL PROCESSES.-In addition to what has been suggested in another place, as appropriate to physical processes, others of a higher order might now be introduced, in view of the new relationship sustained. Business, therefore, becomes a pursuit. The physical powers are supposed to have been trained to some avocation, in which they will be called upon to act in one capacity or another. The danger is therefore, where the business is of such a character as to demand physical labor, that, in the outset, since the desire for success is usually so great, the demand made upon these powers will be greater than they can satisfy, without sustaining an injury. Moderation, therefore, in the pursuit of business, becomes necessary to success. Indeed, moderation is necessary every-where, but chiefly here. Labor becomes a drudgery if this precaution is not observed; and that which was intended as a blessing for man, becomes a curse. Of course, this precaution would be uncalled for in the case of those drones in society, whose excessive moderation excels their wisdom. But these cases are exceptions, involving the condition of those who may be laboring under the disease of laziness, the removal of which will depend much upon its character and the remedies employed.

Again: Moderation in the pursuit of business will be most likely to cultivate the same virtue in the desires and modes of life. Extravagance is the bane of social happiness. It has filled the world with misery. It is an irregularity that strikes at the very root of the tree of domestic peace. It entails wretchedness upon what might otherwise be happy families. It is a fruitful source of intemperance, bankruptcy and villainy. It can only be corrected by adopting its opposite.

But the physical powers yield willingly, nay gladly, to whatever reasonable demands are made upon them, provided they are informed in due time, so as to make preparation; or, in other words, provided the habit is formed. Hence, here, as in other periods, labor should be periodical. This will not only render it more pleasant, but more profitable. When this habit is once thoroughly established, these powers will not ask to be released, but will always manifest uneasiness until they are permitted to return to their accustomed employment. This is proved by the experience of thousands.

But how miserable is that poor wretch who has nothing to do! His own physical energies tormenting him, his conscience goading him, and a world of labor upbraiding him, no wonder that he seeks, in dissipation, to drown these unwelcome visitations. Out upon all such vagabonds, wherever found; whether they crawl amid the slime and filth of poverty, or cling like leeches to the living body of industry, or wallow in luxurious ease! Let us have a world of workers, and then we shall have a happy world.

These powers also demand recreation, which may consist either of a change of physical exercise, or of diversions of a lighter sort. In either case, it should be taken after the physical energies have become somewhat exhausted from the labors of the day. It should also be taken amid pleasant associations, so that the mind may lend its aid to invigorate the body. Hence the practice of manly sports for those whose

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sedentary or mental habits deprive them of the requisite amount of physical exercises; and those lighter diversions, more of a mental and moral character, for those whose physical powers have been taxed during the day, seem most appropriate.

These diversions, however, should be guarded against excesses into which they are liable to run. They should be regulated, therefore, as to time, place, and manner, and never allowed to infringe upon other duties.

SEC 2—INTELLECTUAL PROCESSES.—Our next topic is the general discussion of modes of intellectual culture best suited for the subjective period.

As the individual advances in true education, he requires less and less teaching. His powers, once awakened and properly directed, go forward per force of their own native energies, until, by and by, all the helps being removed, the man stands up a living, acting, positive being, fitted alike for the joys and sorrows, the reverses and successes, the conflicts and triumphs of this life.

His intellectual powers demand continued activity; and, like the physical powers, unless this is afforded them, they fall into decay. The world of science and art, into which they are about to be introduced, furnishes ample scope and the necessary materials for such activity.

The idea that an education, i. e., the full development of these powers, can be acquired in a few years, by attending college, is absurd. The preparation, indeed, may be made there, though this itself is not always done; the tools may be sharpened there, but their edge must be tried and their temper tested in subsequent contest with actual duties. And not only so, but the tempering and developing of these powers are effected in this life struggle. The efforts must be continuous, and the acquisitions constant.

The false notion alluded to above, needs correcting. It is a mischievous one. The young man comes to believe that when he graduates he is educated, and hence entitled to some consideration. And so he is; but he gets the idea that he is then ready to commence in the world, and that it has some special opening for him. He thinks that said world is under an obligation to receive him fresh from the arms of his "Alma mater," and to compensate him for his long years of toil. He thus makes up his bill of items, and presents his claims; but the heartless world tells him "to tarry at Jericho until his beard be grown," or to prove his claim, and to make good his title, and then to come, and it will listen to him. If he obey this admonition, he may succeed. If he disregard it, he will be apt to meet with disappointment, and to fall back among that numerous class of splendid failures who graduate for a name.

But what are the modes of continuing this education, which we have supposed to be commenced and carried forward successfully thus far? One of the best methods of promoting healthy thought, so far as it relates to the school, and of introducing the learner to the higher modes of investigation, is the method of study and recitation by Topics. It cultivates that manly independence and self-reliance which constitute so large a share of the necessary elements of success. But a fuller description of this mode will be given in another place.

The practice of Analysis also, now becomes inviting;

and the dry abstractions of science yield before this powerful battery of thought, as the snow and the ice yield under the influence of the sun's rays.

The Generalization processes follow; and every thing learned assumes its proper place in the superstructure of knowledge, until the whole stands out in fair proportions and beautiful outline, a symmetrical temple of truth.

Criticism also forms a part of the modes of learning and teaching; and texts and authors are examined with care. Every thing is submitted to the severest scrutiny before it is admitted into the mind as a part of the intellectual fabric.

Independent modes of teaching, and the inductive and deductive processes of investigating, form a part of those mental processes by which the individual is carried forward into the higher department of science and literature.

SEC. 3—MORAL PROCESSES.—At no period in man's education do his moral powers claim more attention than when they are assuming that fixedness which gives the various shadings to moral character. A man, in the true sense of that word, standing out in all his manliness, and exhibiting these moral qualities, presents one of the finest objects for contemplation of which the mind can conceive. It would seem that those powers were given man, that in him might shine the noblest perfections of creation.

But what a fearful and melancholy picture is presented, when we behold these powers dragged down from their lofty position, and made the slaves and sport of man's sensual desires! It would seem that no sadder phase of human wretchedness could be exhibited; that no darker shade could be thrown over the scene; for these powers, having been created to occupy the highest seat in the human mind, are subject, when once dethroned, to the saddest reverses, and generally descend to the lowest depths. Abundant provision, however, has been made, both in the physical and in the metaphysical world, for reclaiming and perpetuating these powers.

The study of the works of Creation, as exhibited in the universe of matter, has claims to a high position among educational processes. Man here has an excellent opportunity of viewing and comparing his own insignificance with the stupendous works of God, which overpower his mind. Under the influence of these feelings, he cries out with the Psalmist, "When I consider thy heavens, the work of thy fingers, the moon and the stars which thou hast ordained; what is man that thou art mindful of him, or the son of man that thou visitest him?" He traces the finger of God in the works of creation, as exhibited in the most delicate pencilings of the smallest flower, and in the blushing hues of the rainbow: in the minutest atoms of matter up through all the forms and grades of creation, until he arrives at the very presence-chamber of Omnipotence, where he bows with meek reverence before Jehovah. He worships, he adores. This gives him a more exalted view of life duties and obligations; and he studies the relations he sustains to his fellow men and to his God.

But the study of man himself is a most wonderful subject; and if rightly pursued, will lead to the most exalted conclusions in reference to the wisdom and goodness of the Creator. We find man compounded of the strangest extremes: "mortality and immortality; life and death; soaring loftiness and humbling littleness,—an ally at once of earth and heaven." And yet this is man, distinct from all other beings, and destined to an endless existence. These truths can not fail to produce the profoundest humility in a mind properly imbued with the principles of early piety.

Again: teaching offers a fine opportunity for the pursuit of this subject. The study of man, his physical and metaphysical nature, their wonderful union, the adaptation of means to ends, the modes of culture, the harmony in the laws of mind and matter, and all that pertains to human culture, can not fail to impress the learner with awe and reverence.

But the study of Inspiration, as a moral process, possesses merits to which no other can lay claims. If man's reason, assisted thus by the light of science, can approach so near to God, in the universe of matter, and if it can trace his handiwork in the metaphysical world, with what clearness can it apprehend these truths, when inspiration pours in its floods of light upon them! And if the study of the universe of matter and of mind, and all that pertains to them, from the minutest atom or spark of intelligence up through all the grades of creation, until we lose sight of the created, in the effulgence of the Creator, fills the mind with such astonishment, and calls forth such profound reverence and adoration, what must be its overwhelming sensations, when it approaches that strange and mysterious sacrifice, upon which angels gazed with astonishment, the sacrifice that redeemed the world? Here the feeble powers droop their wings. They can soar no higher; and the trembling 10

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soul, overcome with this exhibition of vengeance and mercy joined, falls prostrate before its Maker. With unutterable fullness, it looks up through this wilderness of mystery, and with feelings of mingled awe and love, it adores and worships that God who planned and executed the scheme of creation and of redemption. The living faith now takes hold upon this scheme, and strengthens itself in the promises left on record for it, and lives and grows in the beatitudes of Spirit life.

It is thus, that, through all these periods and processes, the child, the youth, the man, passes until he ripens into that noble being of power and excellence; or, by an opposite course, he renders all these blessings so many curses, and flings defiance in his Maker's face.

#### CONCLUSION.

Thus, it will be observed, that the whole subject of Education, or Human Culture, resolves itself into a certain science. The whole curriculum of duties, as well as the sciences to which they relate, may be so arranged as to meet the exact wants of the human being at every stage of his progress. The periods, to which allusion is made, are distinctly

The periods, to which allusion is made, are distinctly marked in the history of every educated man and woman, not so much, however, by the sole activity of any faculty or sets of faculties, or by the exclusive condition of the mind or body, as by the preponderance of objective or subjective manifestations and influences.

The transition is not so much a distinct period as it is a mere condition of mind and body, when the change from one period to the other is most marked and rapid. Indeed, there is no distinction in the essential characteristics of the essence of mind, at any particular age, only that produced by its manifestations through a material organism.

The ultimate principle of intelligence is strictly a unit; the difference in kind, both as to quantity and quality, being more the result of physical causes, and different degrees of maturity, than of any original distinction in the character of the thinking principle itself, at its several stages of growth. It is the same intelligent agent, whether we regard it while looking out through the senses, upon the diversified forms and groups of physical phenomena, or turning its energies inward, and contemplating those more wonderful groupings of thought, affection and will, and threading the more intricate mazes of reasoning, imagination and abstraction.

#### THE SCIENCE OF EDUCATION.

SYNOPSIS V. Copying lines. Angles. Geometrical figures. BLACKBOARD Drawing pictures. Familiar objects. Draw-EXERCISES. ing maps. Familiar places. Copying letters. Numerical figures. Copy-SLATE EXER-HAND CULing and forming words representing things. CISES. TURE. Copying and forming sentences. Composition. Painting and coloring pictures and maps. CARD EXER-Perspective and free hand drawing. Archi-CISES. tectural drawing. Painting. Botanical, Geological, Mineralogical expedi-PHYSICAL EDUCATION. tions. Zoological and Entomological expedi-FIELD EXERtions. Topographical and Historical expedi-CISES. tions. Agricultural and Horticultural pursuits. Me-EXCURSION MANUAL EXchanical and Architectural pursuits. Com-AND LABOR. ERCISES. I mercial and general business pursuits. Chemical and Philosophical experiments. EXPERIMENT & Classification of specimens. Arrangement of MANIPULATION. cabinets. Walking, Running, Skating. Drilling. ATHLETIC EX-Climbing. Leaping. Vaulting. Balancing. ERCISES. Fencing, Swimming, etc. Breathing. Exploding Sounds. Reading. VOCAL EXER-CISES. Declaiming in Concert. Singing. Chant-**GYMNASTICS** ing. Arm movements. CALIST HENIC Body movements. EXERCISES. Feet movements.

# CHAPTER V.

# PHYSICAL CULTURE.

### REMARKS.

WE propose in the three following chapters to give a more condensed and connected view of the three departments of education, viz.: Physical, Intellectual, and Moral and Religious, without special reference to any particular periods, but chiefly in those in which the child is under parental and school training.

This might seem, at first view, like a repetition of the topics, heretofore discussed; but upon careful examination, it will be found that while the same principles are brought forward in hasty review, the object is to show their practical utility and more immediate bearing upon the exercises of the schoolroom and the family. The former chapters have dealt chiefly with the theoretical part of education; because it is more in harmony with the subject, and better suited to the purposes of a text-book, to dispose of the theory first.

The following three chapters will discuss the more general modes of teaching, as applicable both to the school and the private circle. And so far as they relate to the theory, they may be regarded discursive; and so far as they relate to practice, they may be regarded didactic. They will sustain the same relation to the theory, that the particular recitations in Reading, Arithmetic or English Grammar would sustain to school-room duties; and hence they may be regarded as supplementary.

#### ARGUMENT.

We begin with man's physical nature first, because he is, in an educational sense, a physical being before he is a moral or intellectual being; and secondly, because it is through the physical organism that we approach the mental and moral faculties, especially in childhood.

The following inquiries might arise in the minds of some, viz. :

1. Is there any special need of physical culture?

2. If so, will not this necessity provide for itself in the ordinary duties of life?

3. Is there any special necessity of connecting it with, and making it a part of, an educational system?

We shall endeavor to answer these questions in the order in which they occur, and then proceed to show the modes of application.

The answer to the first, perhaps could best be given by a reference to the maladies, imbecility and physical suffering of the human race. If it be objected that these are the necessary results arising out of man's peculiar relations, we answer, that this is true no farther than it relates to violated law at some period; that suffering is not necessary to man's happiness (and he was not made for misery), any further than it goes to correct his irregularities, and to call him back to the path of duty; that its mission is accomplished when this is effected; and that it would finally disappear, if the causes which produce it were removed. It might, therefore, be pertinent to the point in hand, to inquire how far a correct physical education would go to reduce physical suffering.

Educating in this, as in any other sense, means developing, strengthening, fortifying and preparing for the fullest and freest activity; and, consequently, for the largest, the most perfect and prolonged enjoyment. This, therefore, would cut off just so much physical suffering; since suffering and disease diminish and disappear in the same proportion in which physical development takes place, the one being incompatible with the other. This point then is settled; and it goes far to settle the main issue,—the necessity of physical education.

It might be further added, however, by way of a conclusion, that, since deformity, disease, and suffering do exist; and that-as it has been demonstrated, not only theoretically, but practically-they disappear proportionally as correct physical development takes place, other things being favorable; and that this last result is secured just in proportion to the right application of physical exercises and correct treatment,-therefore physical exercises, and all that appertains to correct physical treatment, are not only the best antidotes for physical suffering as it now exists, but the best possible means for developing the powers, and fortifying them against the encroachment of disease, and preparing them for the largest and fullest enjoyment. This is further substantiated by actual experiment with individuals and communities. There is, therefore, special necessity for physical education.

2. Will not this necessity be provided for in the discharge of the ordinary duties of life?

We answer, Is it? This necessity may thus be sup-

plied, but is it in the ordinary business transactions? Are there no improprieties, not to say enormities, committed in allowing children to have their own way in physical exercises? Might not many of these irregularities be corrected in training children after a philosophical system? Are their physical powers, in ordi-nary education, developed to their fullest extent, during the time in which the mental powers are receiving attention? Are there not diseases rather, and sufferings, planted at a very early age in childhood, both in the school and in the family, which could be prevented by a proper knowledge of the means, and skill to apply them? Are there any good reasons for supposing that man's physical powers would provide for themselves without this wisdom and special direction, any more than his intellectual powers would? Do they possess instincts or native intelligence to direct. themselves in their development, which other powers do not possess? Finally, do they not seek activity, and in consequence of the urgency of this demand, and for the want of proper restraint and direction, do they not run into bad practices and adopt vicious habits that bring speedy destruction upon themselves and their possessors?

Until these and similar difficulties are disposed of, in such a way as to show the uselessness of system and arrangement in training these powers, we shall claim that there is just as much necessity for special education, in this department of man's nature as in any other; and especially is this true at that tender age when they are most impressible, and consequently most exposed.

3. Is there any necessity for connecting it with, and making it a part of, an educational system?

To this question we reply briefly, that since there is no incompatibility between physical exercises and mental activity, but that, when properly directed, the one promotes the other; and since there is no antagonism between any of the faculties and the forces that develop them; and since it does not become necessary to sacrifice one single physical power or one real enjoyment in order to educate the mind; therefore, we conclude that there is a special necessity for connecting physical training with, and making it a part of an educational system. All the departments of man's nature were made to grow, the one with the other, and not one at a time, much less that the development of the one should demand the sacrifice of the other, as the popular practice, in many instances, would seem to indicate.

It is a base reflection upon the wisdom and goodness of the Creator, to suppose that he made body and mind, and placed them in such intimate relationship, and yet that he demands that one should be sacrificed for the benefit of the other. It is a glaring inconsistency, whose parallel is not found any where else in the wide universe; and yet this very thing is practiced every day, in the family, in the school, and in the college. It is, however, an irregularity that a true and liberal system of education would correct.

We propose, therefore, in order to show the practicability and importance of exercising all the faculties harmoniously and simultaneously, with proper intervals of change and rest, to present the subject of Phys Ical Culture first, as the surest means of meeting, not only the physical wants, but the mental and moral also. All three of these departments should be started together, and kept together throughout the whole course of education.

# PHYSICAL EXERCISES.

We shall proceed in the following order:

- 1. Hand Culture, its varieties and uses.
- 2. Excursion and Labor, their varieties and uses.

3. Gymnastics, the varieties and uses.

### Article 1—Hand Culture.

The hands are the great instruments of physical labor and enterprise. Their great activity as well as the great demand for their services, indicate their utility, and the necessity of educating them. They are among the first of the physical powers, (for they are instruments of power) in motion; and their continued and unwearied exertions, as well as the relation they sustain to matter and mind, as the instruments and media of tactual knowledge, should teach us the importance of providing employment for them at a very early day. Their activity, and consequent demand for employment, are incessant. And unless this demand is met, and appropriate employment furnished, they are pretty sure to find that which is inappropriate, or else to languish in hopeless idleness. In either case a lamentable injury is sustained.

It becomes necessary then, if we follow out the leading idea of this work, to inquire, 1st, into the nature of the educational capacity or want; 2dly, to seek the appropriate supplies; and 3dly, to make the proper application.

The first has been done briefly in the preceding remarks. Their further wants will appear as we proceed. It is pertinent, therefore, to inquire in the 2d place, what kind of employment is best suited to satisfy these wants, and at the same time to accomplish the other results, viz.: their healthy development, keep them out of mischief, open the way to the mind, and, at the same time, train them to useful employment.

It has been remarked, that children are great im-itators. And so they are. They not only imitate the actions of those with whom they associate, but they have an equal desire to imitate the forms of objects with which they are surrounded, at the same time that they are becoming acquainted, at the same time that they are becoming acquainted with them; for the desire to become acquainted is the ulterior cause of imitation, in the great majority of cases. Nothing affords children greater pleasure, at the time when their hands become uneasy and anxious for employment, and sometimes very annoying to mothers and . teachers, than for them to represent, by pictures and other means, the objects of nature and art, with which they are brought in daily contact. In other words, they love to make pictures. They are imitators, or mechanics; and though their first products are rude, yet age and practice will improve them. Their ideas of form, size and fitness have just been awakened, and like other newborn powers, exercise gives them pleasure. They love to give expression to these ideas; and this desire is so great sometimes as to lead to mischief, especially if not directed. Hence the propensity among boys, that have not had this desire properly cared for, to mark and cut, deface and even to destroy objects within their reach. This is only a perverted desire, the last being a distorted one. This may happen, too, very early in life; even before any other manifestations of a similar kind have

made their appearance. It is nevertheless the perverted desire. Who perverted it, is another question. It is enough for our purpose to know that it is so, and that even this bad state of the case can, in a great measure, be corrected.

There is a picture period, or a period of representative knowledge, into which every learner enters at an early age; and the acquisitions and development are more easily made through this source, than through any other. It is the earlier part of the Objective period. Tangible knowledge or objects themselves are first; second, their models and pictures ; third, their names, etc. Every child that arrives at maturity, passes through this period. The same great truth is observable in the process of civilization and enlightenment of nations. They are first objective in their modes of representing knowledge, the object itself conveys the idea; then the picture performs the same office, then the word, etc. Hence the various stages of the development of written language. In the ruder stages of society we find first the pictorial; then, as civilization advances, the hieroglyphic, the verbal, the syllabic, and the alphabetic, or the highest and most philosophic mode of expressing thoughts. Thus it will be seen, that in respect to representative knowledge, a child passing from infancy through all the stages of growth, and a nation of peo-ple passing from Barbarism to Civilization, etc., have many peculiarities in common. But, in order to make the acquisitions more permanent and useful, they should be copied, or represented. This serves to fix it in the mind, and at the same time affords the right kind of employment.

Now observe the harmony and wisdom of the design. The hands, at this period, are full of activity, and must have employment, or they are continually running into mischief. The mind is in that particular condition, in which it craves that very kind of knowledge the hands alone can furnish. The hands therefore, ask to do the thing which the mind wants done, and which can be done by no other instruments. Why not then, let them work for each other, and prevent the countless evils that arise from their separation and consequent inactivity? But what exercises are best adapted to these wants? For the nursery and home training, children should have a plentiful supply of models, pictures, etc., as objects of imita-tion; and slates, cards, pencils and other conveniences, and opportunity for exercising their hands and eyes. This, in the end will be found to be a cheap and very profitable investment, for it will save both time and patience. But for the school-room, a classification like the following might be made:-

1. Blackboard exercises. 2. Slate exercises. 3. Card exercises.

SECTION 1—BLACKBOARD EXERCISES.—It was a remark of a distinguished educator, that "Every inch of school-room wall, not devoted to blackboard, should be appropriated for a cabinet of common things and the curiosities of art and nature." This would be an admirable arrangement for the primary school as well as for the more advanced; for it would afford the right kind of facilities for experimenting and drawing. But a large amount of blackboard is also necessary for the use of children; so that when they become weary of their other lessons, and of their seats, as

they soon will, they may go to the board and amuse themselves, by drawing lines, pictures, maps, etc. This would be a much better means of disposing of this superabundance of vital force and mental activity than to let it work off in the form of mischief, or even to attempt to crush it out by long confinement, and then to complain that the child has not capacity, when in fact he has just been deprived of what little he had. Scolding and whipping will only aggravate the evils by driving this activity into improper channels. Better direct it than attempt to crush it; for in doing the latter we are warring against the strongest element of power, planted in the human being. We venture to say that the effort to keep children quiet, all the time, in the school-room, as some teachers do, is more ex-hausting to teachers than all the teaching they do, simply because children were not made to be quiet all the time, any more than trees and plants were made to be moved every few days. Look at that child, teacher, as he writhes in the hopeless agony of idleness before you; and then tell me, if you can, that he must be quiet. Why, every limb and joint, and bone, and muscle, ligament, nerve, and fiber in his body quivers its negation to such a proposition, and says, as plain as language can say, give me exercise, activity, and labor. Will you, therefore, be dumb to these mute but eloquent pleadings? The children need the exercises of which the teacher strives to deprive them; and the teacher needs the force thus expended, to direct the children in their lessons and exercises. Let, therefore, the same harmony obtain here that exists every where else, in the departments of nature. Blackboard exercises may serve in part, at least, to exhaust that accumulation of vitality which is sometimes so annoying,

but which was never made to be wasted nor crushed out. For convenience, these exercises may be classified somewhat in the following manner:

1. Copying, and forming lines, angles, and geometrical figures. The perpendicular, horizontal, and oblique lines might constitute one class of exercises; and if the teacher can afford the time necessary to direct them, it would be well to have the whole class operate in concert. The combinations of right lines into angles and rectilinear figures might constitute another; while the curves and their combinations would constitute still another.

These exercises will cultivate close observation, and will train the judgment in comparison and in the apprehension and conception of forms of beauty, as well as the eye and the hand in tracing them. And when sufficient command of the hand and the muscles appertaining thereto, shall have been secured, a higher class of exercises may be attempted.

2. Drawing pictures of familiar objects, etc., will be entirely compatible with the wants. Here it will be found that some children will prefer one class of objects, and some another. It may therefore be well to indulge them, to some extent, in their preferences, both for the purpose of encouraging them and of ascertaining their peculiarities. Better opportunities will also occur here for learning the disposition and capacity of the child, than will ordinarily occur in a whole term of the best instruction in A, B, C. Superadded to this will be the opportunity of encouraging talent in mechanical execution and æsthetical culture departments of education too much neglected among the American people.

A classification of objects like the following, may

be of service to teachers: animate and inanimate objects; and of the first, the wild and domestic, with any subdivisions that may suggest themselves. Of the second, natural and artificial; and these again suggest their subdivisions as organic and inorganic, as vegetable and mineral-such as trees, rocks, etc.; and for the artificial; architectural structures, mechanical, agricultural and household implements, etc., etc. But it will be found best in most cases, at first, not to adhere too strictly to technical distinctions or classes. Let there be as much freedom in the selections as will comport with the nature of the exercises, it being sufficient for ordinary purposes to place the copies or models before the class, and allow them to make their own selections, except when the object is to secure concert of movement and dispatch, precision and accuracy in execution. In this case, the same forms should be selected for the whole class, and a regular drill given in the execution of them.

This mode of representing things will suggest the representation of localities or places. Hence, drawing maps of familiar places will follow as a matter almost of necessity; and the little urchins' eyes will sparkle as they trace the outline of the door-yard, the garden or orchard at home; or the school-room, the playground, or flower-garden, and little paths of the school premises; and I have seen the teachers' eyes sparkle too in such exercises, and a feeling of sympathy and love pervade the whole group of learners. How much better this, than that cold, forbidding crabbedness which freezes the very life out of children ! This process will awaken mind as well as afford an outlet for vital force.

SEC 2-SLATE EXERCISES .- Another class of exercises equally important, though not so much of a physical character, may be named Slate Exercises. These may be practiced at the same time with Blackboard Exercises, and presuppose that children should be furnished with slates, the very first day they enter school. They are even more useful and necessary then, than their books are. It were no greater inconsistency to send a child to school without his coat or appropriate clothing or food, than to send him without a slate. He will need his slate and pencil as much as he will need any of these articles. It would be like sending a man to do a day's work without providing him tools with which to work; and the enormity would be still greater, if we should tie his hands and feet, and then require him to work. The analogy can readily be traced by those who have seen little boys and girls tied, as it were, to their seats throughout the long, dull hours of the school-day, with the hopeless task of nothing to do, staring them in the face. The best primary schools in the land now require the slate and pencil, as a necessary preparation for attending school.

There may be difficulty, however, at present, in securing this arrangement in the country school; and it is quite likely the same difficulty would exist one hundred years hence, provided there is nothing said about it. But a reform is necessary and *right*, and therefore should be put into operation as soon as possible. What, therefore, are the exercises with the slate? The child is supposed to be about learning the alphabet of elementary sounds, as a mental exercise. Now, of what advantage will this physical exercise be to him in this respect? For we have claimed for it that it is useful every-where, and in every way. It is a peculiarity of childhood, as well as of manhood, to set a greater value upon its own products than upon others. Hence the little boy will value the sled or top he made, or the little girl the doll dress she made, vastly more than he or she does any others, though the latter may, in reality, be ten times more valuable.

One reason for this seems to be that their attention has been called to every particular in relation to these things; they have felt an interest in every part and particle of them; their little ingenuities have been taxed, exhausted perhaps, in their production. Hence they have really cost them more; and a consciousness of ability to produce them, renders them a thousand fold more valuable. So in making a picture, a map or a letter. Its value to the child will be in proportion to the interest and ingenuity expended in its production. He will feel a greater interest in a letter or figure he makes himself, than in one he finds already made. All the letters of the alphabet, and the numerical figures may thus be made at the same time that children are learning them-all too, by just taking advantage of the desire and necessity for physical exercises

Copying and forming letters and numerical figures may, therefore, constitute a pleasing and profitable employment for children while upon their seats, about the same time that they are taking lessons or exercises on the board.

But as soon as a child learns to make a few letters, he should be taught to combine them, so as to form words representing familiar objects. This now awakens in him the same idea that the real object or the picture did. Then his ambition and interest increase. He begins to feel that he really is employed about some important business. And so he is. It is questionable whether, if he should live, he would ever be employed about any greater. Let him feel it then. Let his little heart swell to its utmost capacity; for he has actually accomplished wonders when he has acquired the ability to represent objects and words; and no wonder, if it become the proudest achievement of his life.

Hence, copying and forming words that represent familiar things, may constitute the second step in slate exercises, corresponding to the pictures on the blackboard or the slate, for they need not be confined to the board.

As soon, therefore, as words are formed, the propriety of connecting them will at once suggest itself; and little sentences composed of little words will soon grow up under this nurturing process. And hence just as fast as the child learns the elements in his mental training, he should use them in all possible relations until he is perfectly familiar with both their nature and use. Hence *composition* writing is commenced right here, on the principle that as fast as a child learns *facts* and principles, he should both *do them* and *tell them*.

The advantages of the above named course can not fail to be seen and appreciated by every intelligent teacher. It might seem at first to be more of intellectual training than physical. Grant it: but it will be remembered that it is through the physical man that we reach the mental; so that while we adopt exercises to meet the wants of the hands, we are all the time feeding the mind most effectually. SECTION 3—CARD EXERCISES.\*—These exercises are intimately allied to those last mentioned, and may be included under the head of Hand Culture, though they are not less efficient in the cultivation of the intellect, and the taste in particular. They may consist of two varieties, and are semi-intellectual in their application and effects. To be learned and appreciated they should be seen.

The first consists in the use of blocks or slips of pasteboard, or cards with letters printed upon them; and grooves, or frames, or plain surfaces, into which or upon which the children place these blocks, etc., so that the letters shall form words and sentences. This plan has been successfully adopted in teaching idiots. It aids them in the control of the muscles, and gives them precision and individuality of movement. The exercise is both physical and intellectual, and, if properly conducted, will suitably engage all the powers at the same time.

The other has reference to the use of blank cards or slips to be used in drawing, either linear or perspective. Painting or coloring pictures or maps, architectural drafting and sketching from nature, will afford the pupil great delight and profit.

Special directions for conducting these exercises seem unnecessary here, since we have text-books upon most of these subjects. Indeed they scarcely need any direction. They will follow the other exercises, if the means are provided, just as certainly as reading will follow spelling, or as acquisition will follow experiment and study. And they may be continued all through the school period.

<sup>\*</sup> Free hand Drawing, as now taught in our best schools, supplies this want.

We close this section with these general remarks: 1. That teaching and learning become pleasant just in the proportion in which they conform to natural and philosophical principles. 2. That antagonisms and inconsistencies cease in the same ratio. 3. That while it is not the teacher's duty to relieve the child of any of its appropriate labor, not even to remove the natural obstacles from the way, but rather to teach it how to surmount them; yet when the way is entirely blocked up, and hedged about with error, it is his duty then to break the way and to remove the unnatural obstacles. 4. That it is important that this be done soon, since the miserable excuses now urged by some teachers, for clinging to the errors in teaching, will be likely to have as much force one thousand years hence as now, provided no one steps forward and offers to remove them; and lastly, that it is the better policy always to educate the school up to a proper standard, than to degrade the standard to a level with ignorance and inconsistency.

#### Article 2-Excursion and Labor.

There is another department of physical culture or exercise properly belonging to school and family training, which should receive attention here.

For the want of a better name, we shall call it *Excursion and Labor*.

Its application to the school-room is uot so immediate as that of Black-board Exercises; yet, there are many things connected with it that will render it highly useful for the same purposes for which the others are recommended, viz: 1st, In affording an outlet to the superabundance of vitality, and leading it off into useful channels; 2d, In developing, fortifying, and training the physical powers to manly vigor and useful employment; 3d, Of opening up the way for the most successful mental and moral development.

For convenience the subject may be classified as follows: 1. Field Exercises, etc.; 2. Manipulations and Experiments; 3. Manual Labor and Business.

These terms are not expressive of the precise ideas intended, and yet they come nearer than any others in our vocabulary.

The Field Exercises are used somewhat in the sense of *Field Notes* in surveying, etc.

They may include, 1. Botanical, Geological, and Mineralogical Expeditions; 2. Zoological and Entomological Expeditions; 3. Topographical and Historical Expeditions.

It is a truth well attested, we think, that nature, in her multiform varieties, teaches not only the first, but some of the most attractive and useful lessons. Her treasury of knowledge, for simplicity, variety, utility, and beauty, is not surpassed by all the accu-mulated stores of art. These stores, too, are well adapted to the purposes for which they were intended. Each season of the year brings with it its peculiar charms for childhood, youth and age. Hence, childhood and spring, middle age and summer, old age and winter, have ever been used, not only as the strongest types of physical and metaphysical resemblance, but as actually possessing mutual attractions for each other. But, however this last may be, it is nevertheless certain that the fields and the woods, the rocks and the brooks, the mountains and the floods, the flowers and the fruits, that are cast abroad in such profusion over the face of nature, possess a charm for the heart, for which we may seek in vain elsewhere

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This is emphatically true in youth. But what advantage can be derived from these dispositions in children, and their corresponding excitants in nature?

This marked conformity of want to supply and supply to want, indicates design; or else it forms an exception to the general rule.

SECTION 1—FIELD EXERCISES.—Botany is a science of great beauty and acknowledged utility; but its study is usually deferred until late in life. This, perhaps, is well, so far as the technicalities and more difficult parts of the science are concerned. But there is much of the beautiful and useful of this and kindred sciences that may be taught in connection with the school duties, physical exercises, and common duties, where they will be most readily seen and appreciated.

What is more lamentable than the ignorance that prevails among laborers, and indeed, among all classes, in reference to this and kindred sciences! And for what class of society are they more useful and betitting than for that which is brought in daily contact with nature's loveliness? But how shall the evil be corrected? Must they or their children spend their time in the pursuit of these branches in the ordinary way of studying them, when so many other things demand their attention?

Much, and perhaps all that is really necessary, might be done for children in these branches, while they are attending school, without at all interfering with their other duties. This is the age with them, when their bodies need the fresh and invigorating air from mountain and valley. Their long confinement in the schoolroom, perhaps in fetid and poisoned air, will render some change more necessary. They need, also, the active exercise of limb and body. The long rambles, the excursions after fruits and flowers, etc., which will bring them in close proximity with the wonderful works and operations of nature, will afford this in due measure.

The waters and the air abound with life. The earth teems with myriads of living beings. Her bowels groan with untold wealth, intellectual as well as physical. Her surface is covered with a carpet or verdure, and starred and gemmed with flowers. Her products are full of strange variety, and the foot-prints of the Creator are visible upon every rock. Can she fail, therefore, to become interesting to the learner?

These objects themselves possess the same advantage over the mere description of them, in text-books, that a view of a real scene or visible transaction possesses over the mere description; and, added to this, is the physical labor that earns it. Of course, these excursions and exercises will not supersede the use or necessity of the text-book. They will render it only more attractive and useful, for reasons that have already been given.

What, therefore, will be the impropriety of stated rambles or excursions over the hills and along the brooks and rivers, in the fields and in the forests, to eatch the glimpses of those noble forms of creation, that art can never equal, and which will plant great thoughts deep down in the soul?

Why not pluck the wild flowers, gather the fruits, or cull the specimens of shells and stones and ores, that abound in almost all localities? Why not hunt the beetle and the butterfly, and collect specimens in all the departments of natural history? Why not interrogate nature here in her own dominions, where she will give sensible responses? Why not bound with light foot and lighter heart over the joyous earth, since our bodies languish, and our souls pant, and nature beckons us with her blandest smile? There *is* no impropriety in it, more than there would be, if a man were hungry, to feed him.

Let us suppose a band of blooming boys and girls sallying forth for an afternoon ramble. The understanding is, that they are to collect specimens in all the above named departments of natural history, for the purpose of forming a school cabinet.

They attack the first coal-bank that lies in their line of march, and make the necessary spoliation. The next may be a patch of wild flowers, or blossoming shrubs or trees, and the shouts and exultations are prolonged and loud. <sup>-</sup>Can you look at that excited group, teacher, without emotion? Why not? Because it is an exhibition of nature, giving a lesson to her children, a kind of recitation too rare in the schools.

Look again! There, they have found a nest of bees! And mark how that ambitious boy will risk the pain of an encounter, rather than lose his specimen of the hymenoptera. And see where yonder stream washes the pebbles from the mountain! What a busy crowd collect there! They are gathering shells and stones; and that fern along the sedgy lake or pond, must grace the herbarium of a loved sister or classmate. Even the fishes can not escape, and attacks are made on the brooks and streams. Thus they ransack nature through till, tired, some sink down to rest, and cull their specimens; and some to ruminate, and drink in, the forms of beauty and grandeur of nature. And now the little group return to their 12 school-house; tired, it may be, with the toils of the march, but laden with the spoils of science. Now they examine their stock, and prepare for the arrangement. They investigate and discriminate; they classify and arrange their specimens And how sweet their sleep becomes, this night, because they have been exercising all their powers harmoniously; and think you they will not love their school and its exercises more and better, for this acquisition? Will they not, too, escape that ignorance, so common as to these sciences? Their stupidity must border close upon idiocy, if they do not.

SECTION 2—EXPERIMENT AND MANIPULATION.—The process of experimenting and manipulating may now commence; and it will be with that real interest that always invests a subject, when thus rendered practical. These exercises may be classified according to the amount of apparatus, grade of school, and elements used:

1. Chemical and Philosophical Experiments; 2. Preparation and Classification of Specimens; 3. Preparation and Arrangements of Cabinets. Every school-house in the land, might have a cabinet of some kind. The woods and hills and brooks, are full of the right kinds of specimens; and that teacher who is too indolent to collect them, or allow his pupils to collect them, ought not to be allowed to *keep school*.

Nothing perhaps would add more to the interest and profit of the school-room, than thus furnishing it with specimens in all the departments common to the locality, and with Chemical and Philosophical apparatus, by which other wonders in the natural world might be exhibited.

Enter two class-rooms with me. In the one, the
astute professor is lazily asking, or rather reading, questions to the class; or it may be, he is discoursing learnedly upon the various geological periods, the philosophical abstractions of Metaphysics; or he may be explaining the technicalities of Natural History, Language or Mathematics. The pupils sit with meek, blank submission. With folded hands and eyes upturned (if awake) it may be, half wonderingly upon him, but more likely staring into vacuity; their minds-it were easier to say where they are not, than to guess where they are. But thus they manage to endure the lesson. Every thing evinces the languor, stupidity, uneasiness and inattention of overconfinement. Now at this point, propose a geological or botanical excursion with them, to the mountains; or a ramble or a scramble over the valleys and hills, as described above. Will not their eyes sparkle, their blank faces kindle, their forms straiten up, and every muscle begin to contract and to prepare for the encounter?

But enter the other class-room. The pupils are all fresh from one of those excursions. Each one holds his specimen, and is anxious for the test of experiment or examination. The teacher, no less enlisted than they, need but suggest a subject, and their willing minds grapple with it at once. They are all alive. The difference in the two recitations is quite perceptible. These latter have been shaking hands with the living, loving and speaking forms of nature; and their cheeks glow with health; their eyes sparkle with intelligence; and their minds kindle as they approach these life-giving subjects. The one process is *teaching*, the other is *stultifying*. Physical culture suggests the former. Now there is no possible excuse why school-houses should present the barren and forbidding appearance that they do, so long as nature abounds with the very apparatus that is needed. And what renders this matter still more urgent is, that most, if not all that is absolutely necessary, may be collected in the immediate vicinity, by the teacher and pupils, in their rambles for needed recreation and health. What could not thus be collected, might soon be secured by exchanges.

Is this impracticable then? If so, then *education* is impracticable, because it involves the very first principles of education, viz.: development, discipline, acquisition and use. If this *is* mere speculation, and delicately elaborated theory without a possibility of practice, then education is a failure; and we must forever be doomed to unwelcome toil and drudgery, to vexation and ultimate disappointment, with the great mass of youth. But we are at liberty to draw no such conclusions. The experiments and successes already accomplished forbid this; therefore, the premise is wrong, and this *is not* mere speculation, but sound practical philosophy—the natural and most ready and legitimate way to accomplish the ends we have in view.

SECTION 3—MANUAL EXERCISES.—The topic of manual labor and exercise has been discussed in preceding chapters. It will not therefore be referred to again, except to show its connection with this part of the subject. The person taught after the manner indicated above, goes to his daily toils, feeling the dignity of labor. He not only feels that he is surrounded by the living and loving forms, but that he is handling the very instruments that God has made for his use. He goes to his fields, not like the galley-slave scourged to his duty, but conscious that he is there to meet with those welcome companions, those old acquaintances, that have contributed so largely to his happiness in early life.

The mechanic, the professional man, and the man of business are equally benefited, in their several departments, from the knowledge of the forces of nature that have been thus early revealed to them.

Again: the chances for success in almost any department of business are more than doubled, by this early and practical acquaintance with Nature and her laws. Numberless occasions will occur, in the life of an educated man, in which he can not only enhance his own wealth and happiness, but can contribute largely to the enjoyment of his fellows. He sees beauty where others see deformity; and the grosser materials that are passed, it may be, with indifference by the vulgar, are made to contribute to his wants and enjoyment.

And last, but not least, these things have had a tendency to preserve health and develop the physical man. They have preserved him from a broken-down constitution; and now that he is a man, he has the feelings, the habits, the soul, the mind and the body of a man.

#### Article 3–Gymnastics.

The next subject to which attention will be called, viz., Gymnastics, is one so full of science, that we do not feel at all competent to do it justice. It has, however, such a practical bearing upon a symmetrical education, that its leading principles may be so grouped and presented as to enable the teacher to apprehend them at once, and to put them into practice.

Text-books on this subject have been carefully compiled, which, if consulted, will enable the teacher to build up his own system. This subject is claiming much attention, in this way, in our best schools and among our ripest scholars; and the educational instrumentalities are considered by them, to be quite incomplete, if they do not embrace the means of physical culture.

Gymnastics, as it is applied by modern educators, has reference to the healthy development of the physical powers. It accomplishes this by means of various exercises which will be named hereafter. It proposes to correct the abuses commonly practiced, and to remedy those evils that have been imposed upon the body by improper management, as well as to strengthen and fortify it against the encroachments of disease. As such, it has been introduced into the schools, and is fast becoming a regular system of training.

SECTION 1 — ATHLETIC EXERCISES. — For practical purposes the following classification might be adopted. It may be made to include all, and perhaps something more, than can be practiced in the common school.

The Athletic Exercises may include Walking, Running, Leaping, Skating, Rowing, Balancing, Climbing, Vaulting, Fencing, etc. Most, if not all of these exercises may be practiced in connection with the school duties, provided there is some one to give direction to them.

Take the first one, for example. But it may be asked, "Do not our boys and girls of school age know how to walk ?" "Why teach them what they already know?"

We ask, *How* do they walk? Are their manners in this particular what they should be? Take an example in some of our rural districts. Propose to the children to give a sample of their ability to cross and recross the room; to pass to and from the recitation seat; or to enter and retire from the room; and what are these performances like? We would be safe in saying they are like nothing else. They are purely *sui generis.* There would be limping, halting, swaggering, embarrassment, affectation, awkwardness, slovenliness and perhaps as many more varieties.

Now all of these faults become very annoying to a teacher of taste or refinement, especially in recitations. Can they be corrected? We maintain that they can; and that too, at school, and in the school-room both the time and place to do this work. It is seldom ever done if neglected here. There is no time so favorable for refining the body, as when we are refining the mind, and when its organs and instruments are in a plastic state.

The first thing to be done in correcting the evils of this class, to which we are prone, is to cultivate an erect and easy posture in standing. Then some simple and graceful movements of the hands and arms—such as are commonly used in oratorical gesticulation; then of the feet in changing the position from right to left and the reverse; then turning, first, one quarter, then one half, and finally entirely round—each effort constituting a separate exercise, observing to make as little effort as possible.

These exercises should be practiced in concert daily,

and usually with the reading lessons, until the pupils acquire ease and freedom in the execution of all the movements.

Now the *step* may be introduced, which should consist, at first, of a few simple movements in concert; and may be timed either with or without music. Let them be easy, graceful, firm and elastic. For the school-room walk, as it is sometime termed (not the march), the toe should be last to leave the floor and first to approach it. This is done by a slight flexion of the knee forward, and also by throwing the body forward and over it, so as not to give the walk the appearance of a *strut*. It is not walking upon the toe entirely, since the bottom of the foot and heel are gradually brought to the floor after the toe or ball has struck.

A daily exercise at least should be practiced, and the boisterous, slovenly and uncouth habits of the boys and girls will soon undergo a change for the better, much sooner than if they were scolded for their noise and bad manners for a whole term.

In all these exercises, care should be taken to avoid the labored or affected manner, such as reeling from side to side, or swinging the hands and arms, etc. Nature only needs assistance, in order to give the truest manners and the highest polish.

Here again it will be observed, the law of mutual adaptation is reaffirmed; for while these exercises are adopted chiefly for their physical benefits, they accomplish a very important part in the mental and moral development, and social refinement of the pupil.

The running, leaping, skating, rowing, etc. belong more appropriately to the play-ground and excursion, but may be rendered tenfold more serviceable by being

superintended by a competent master. And then again, those injurious excesses into which the pupils are liable to run, may be avoided.

We shall not attempt a description of these exercises here, but would beg leave to refer the reader to works on these subjects.

The climbing, balancing, vaulting, fencing, etc., as well as some to which reference has been made, belong to the gymnasium; and, where the school is furnished with an instrumentality of this kind, they should be under the strict superintendence of a competent instructor, by which the evils of improper and too violent or too feeble exercise may be avoided, and the healthiest, manliest strength and vigor cultivated.

How much wiser, on the part of the educator, to take advantage of this desire for active exercise, so common in childhood, and make it accomplish some important part in the child's education, rather than to allow it to be wasted in idleness, or upon corrupting and vicious games and triffing amusements, whose only effects are to degrade the man!

SEC. 2—VOCAL EXERCISES.—Technically, gymnastics might not cover all the ground we have mapped out for it; but practically, we propose to make it include all that belongs to body culture, not included in hand culture, and excursions and labor.

Hence both Vocal Exercises and Calisthenics will claim attention. The human voice is the product of physical effort. Its organs constitute not only one of the most useful apparatuses, but, at the same time, one of the most delicate, complicate and wonderful.

We shall not attempt its anatomy or analysis here, but shall content ourselves with offering some suggestions on modes of culture, as connected with physical exercises.

One of the great obstacles to vocal culture is weakness and want of flexibility in the vocal organs. These should be the first things corrected. The habit of weak and indistinct speaking is one that annoys teachers much. Hence various devices have been resorted to, in order to correct it. Pupils have been coaxed, censured, and even threatened, for not speaking loud and plain enough in recitation, while it has been alleged as evidence against them, that they can speak loud enough in conversation and on the playground.

But scolding, however much it may increase the *teacher's* quantity of voice (we do not think it can improve its quality), will have little, if any influence in improving the voices of the pupils. The only effectual way to induce them to give up their bad habits, is to give them good ones in exchange for them; or, in other words, to drive out bad habits by means of good ones.

Good reading and speaking, as a physical exercise, is made from good voices, and good voices are made from breath or breathing. Hence good elocution depends upon the breathing. The first step, therefore, in vocal gymnastics, is an exercise in breathing. This, at first, might seem unnecessary, since, in the language of the little boy who was caught whistling in school, if we let it alone, it will breathe itself; yet very few people really know how to breathe, so as to make the best possible use of their breath. If all did know, then would all have good voices, except those who have physical defects.

But suppose an exercise in breathing.

1. Position .- The pupils are arranged standing, and

it may be best, on a line, on each side of the room, facing each other. The posture should be erect, the hands resting upon the hips and waist, the fingers forward and pressing slightly upon the abdomen, the shoulders thrown back, but not strained.

2. Inspirations.—The inhalations should be in concert, and, at first, moderate, but gradually increased from time to time, until they become long, full, and deep, filling the lungs to their utmost capacity. They may be made either through the mouth or nostrils, or both; and, for the greater part of the exercises, they should be made without noise, or what is called loud breathing.

3. *Expirations.*—These should correspond with the inspirations. All the air should be expelled from the lungs, preparatory to another inhalation, gradually at first, but increasing in force and rapidity until the explosive force is reached. The passage of the air to and from the lungs, may, for convenience of concert exercises, be indicated by the upward and downward movement of the hand or index of the teacher.

The exercise should be daily at least—twice a day is still better—and should be continued each time until a sensation of dizziness is experienced. This sensation, however, will gradually subside. It would be well, in some instances, to accompany these breathings with appropriate motions of the hands and arms. These, thus combined, would give capacity to the lungs and chest; would develop and strengthen the muscles situated in and about them, and at the same time they would give command over the hands and arms. Another exercise, or rather a modification of the same one, may now be commenced.

It requires the same order and arrangement, and

the same exercise, except that in place of simple breath or breathing, we now use the voice while expelling the air from the lungs.

1. The long vocal sounds should be selected first, and delivered with all possible force, key and velocity; then *all* the vocal sounds in the same manner. It is best to practice on the deep tones first.

2. The sub-vocal and aspirate sounds may now be given in a similar manner, with the exception, perhaps, of some of the variations, observing always to secure full, deep, healthy sounds, as the physical benefits, as well as the success in training, will depend upon this.

3. Now take a word or short sentence, one having an easy flow of sounds, and drill the class upon it, in the same manner, through all the possible varieties of force, pitch, velocity and inflection. Then advance to more difficult sentences, and those having the most difficult combinations of sub-vocal and aspirate sounds.

The following system of marks has been used by the author, with some success, in drilling teachers at Institutes, and may be of some service to others.

The heaviest stroke in the following scale indicates the greatest force, or the loudest or greatest volume of voice; the next in size, a slightly diminished force, or loudness, and so on down to the softest murmur, and even the whisper, which might be indicated by a dotted line. Thus:—





And thus again with velocity or rate of motion: the first or long intervals in the following, representing slowest utterance; the less intervals, the accelerated motion, and so on increasing, until the greatest rapidity of which the voice is capable is reached; being careful to maintain the same general force and key. Thus:—

	•	•	•	٠	•	۲	Slow.
VELOCITY.	•	• •	• •	•	• •	•	Medium slow
	{	• • •	• • •	• • •	• • •	•	Medium.
						• • •	Medium fast.
	l	••••••				•••••	.Fast.

And lastly the inflections and other variations may, for convenience, be represented to the eye; though but few of these can be thus represented with any considerable degree of accuracy. A rude sketch of them might be given as follows, commencing with the upward or rising slide, through all its degrees of abruptness; then the downward or falling slide in a similar manner; then the sweeps, waves and waving slides, as denominated by some authors; so the bend, the swell and emphasis (very imperfectly however), and every possible movement of the voice may, as a matter of convenience, in concert vocal drills, be represented to the eye. Thus:---



The advantage of this plan is, that it represents to the eye, what sometimes is too feebly represented to the ear, and for this reason, fails to reach the understanding. A person can lift more with two hands than he can with one. For a similar reason, a pupil will more readily apprehend a fact or principle when his eyes and ears both are addressed at the same time, than when addressed separately.

The foregoing plan possesses another advantage. It does not complicate the matter and confuse the scholar with a multiplicity of things at the same time. This is the prevailing error of the highly wrought systems and theories; and of those who teach them. But according to the above arrangement of the exercises, but one thing is attempted at the same time, and that is completed before another is commenced.

It is not elaimed, however, that this plan is complete or exclusive, or that some other might not answer equally as well. It must be remembered also that it is only given as an exercise in vocal culture — as a means of strengthening and developing the powers of the voice, as a physical instrument.

# EXERCISE. '

A sentence may now be selected for an exercise in Force, and the class is drilled in concert on all the forces indicated, and as many more as may be thought best. It will be found best to commence with the medium, and ascend or descend from it. Frequent and rapid changes, from one degree to another, may be made as a test of the ability of the members of the class to control their voices. With the necessary variations, these directions will also answer for the other varieties.

The class may be divided into sections after the members have acquired some skill and confidence, each section reciting in concert, and these again into sub-sections, until finally, the individual exercise may be given.

Care should be exercised in these drills that the proper *force*, *pitch* and *velocity* are preserved, e. g., when the exercise is on force, the pitch and velocity should be preserved the same throughout; when on pitch, the force and velocity should be uniform; and when on velocity the force and pitch should be the same throughout; on the variations, all should be varied more or less.

These exercises, properly conducted, will certainly break up the most inveterate habits of weak voices and indistinct articulation. I have never known one so deep seated as not to yield, where a fair opportunity was offered.

But the excellencies of these exercises consist in their universal usefulness; for while they are practiced chiefly for their physical advantages, they constitute the very best means of teaching and training in that most useful of all arts, the art of speaking and reading. Singing is nearly allied to these exercises, and when practiced in connection with marching, and hand and arm movements, as may be done in connection with the school songs prepared for these purposes, it becomes a very exciting and healthy physical exercise. But this would rank more properly with the next topic.

SECTION 3 — CALISTHENIC EXERCISES. — Calisthenics, as its etymology implies, is a science which has for its object the cultivation of beauty and strength of body and limb. As an exercise for this purpose, it perhaps has no equal. It proposes to meet the precise difficulties and diseases that arise from study and overconfinement, the exercises being so arranged as to bring into activity those parts of the body suffering most from inactivity, and resting those parts that may have been overtaxed with exercise.

We do not propose to give a full exposition of the subject here, it being sufficient for the present purpose to give the outline and allow teachers to consult textbooks upon this subject, and to suit the particular exercise to the particular wants.

It may, however, be classified for ordinary purposes, in the following manner:

1. Arm movements.

2. Body movements.

3. Feet movements.

For a full and complete description, and special directions in those exercises, as practiced in our best schools, the reader is referred to the author's Art of Teaching, Chapter Fifth, Article III.



#### THE SCIENCE OF EDUCATION.

SYNOPSIS VI. ( Properties of matter (external.) Motion. NATURAL OBJECTS. Sounds. General phenomena. Apparatus. Models. Toys. Pictures. Num-OBSERVA-REPRESENTAbers. Directions. Symbols. Simple combi-TION & EX-TIVE. PERIMENT. nations. Words (written) denoting things. INITIAL AND ... " 66 actions. NAMES. \*\* \*\* " qualities & relations. Tales. Sketches of travel and adventure. In-CULTURE. INTERESTING cidents in biography and history. Description NARSATIVE. of common things and occurrences. Natural phenomena. Waking thought. Laws CONVERSA-INTELLECTUAL SCIENTIFIC of life and health and growth. A knowledge TION & DE-FACTS. SCRIPTION. of the arts and employments. Maxims. Mottoes. Sentiments. Rhymes, REHEARSALS, Poems. Lessons. Law. Correct mental &c. habits. Order. Relations. Adaptations. Chemistry. Agriculture. Natural and mechanical philosophy PHYSICAL SCIENCE. Mathematics. Art. Natural history. Laws of life. Practical grammar. Composition. Philolo-INVESTIGA-LANGUAGE AND TION AND gy. Literature. Criticism. Philosophy of GENERALI-HISTORY. ZATION. history. Politics. Attributes of intelligence. Laws of thought Existence, Duration, Infinity, Taste, Ideal METAPHYSICS. ity. Theories. Creations,

# CHAPTER VI.

## INTELLECTUAL EDUCATION.

THE intellectual education of man ranks among the highest duties of the age. It has claimed more attention, however, than any other, since it has been thought that the intellect of man is about all there is of him, worthy of special cultivation; a proof, this, of the high position it should hold in the scale of human elevation.

So great has been the desire for intellectual culture, that both body and soul have been sacrificed, and are to this day, in many instances, in order to secure it. But the relationship and sympathy between all the powers and faculties of man are such as to forbid that one department should suffer without impairing the health of the other. Hence the very plans adopted to force intellect beyond the natural growth, have proved destructive, not only to other powers, but to the intellect itself, thus defeating the very object had in view, since upon the healthy condition of the other powers, depends the harmonious and safe development of the intellect. No forced measures, however successful they may have been for a season, have ever done more than to show that the order of nature can not be disturbed, in the slightest degree, without deranging the whole educational system.

To the educator, it becomes a matter of the first

importance, not only to understand the nature and character of these powers individually, but to know their relative value, and modes of treatment.

The intellect has powers and faculties that have a mutual influence upon one another. The activity of one set of faculties, induces a corresponding state in others; and the disease or inactivity of one, will induce disorder and abnormal growth in another. These powers do not all unfold or develop at the same time, nor in precisely the same order in different individuals. The same variety obtains here that exists every-where among nature's works. Nor yet do they individually come to maturity at once. They require their full time for growth, just as essentially as trees and plants do; and no attempt to hasten them will be tolerated.

The order of development is a matter which demands consideration. There is first the bud, then the blossom, and then the fruit. But it would seem that this order is much deranged, and in some instances, almost inverted. There is a great desire to gather fruit from the blossom, and even from the buds. Man is too impatient of delay. And not only so, but he is disposed to search for fruit upon the wrong vines. This arises from an imperfect understanding of the nature and design of the faculties themselves, which results in a corrupt state of education.

The most popular classification of mental faculties recognizes the following grand divisions, viz.: Intellect, Sensibility and Will. The intellectual powers, or those now under special consideration, have, according to their nature, and the offices they perform, been divided into two groups, viz.: the Primary and Secondary faculties. These have their subdivisions, as Perception, Consciousness (which, perhaps, is more a mental state than a faculty) and Intuition, or Original Suggestion.

These again have their several functions to perform. Hence arises another classification based upon use.

Perception, for instance, may be classified according to the several organs through which it acts; and the knowledges or apprehensions of externality that such action gives: such, for example, as smell and odors, taste and savors, touch and texture, temperature, hearing and sounds, sight and color, form, size, etc.

These senses have also their interchangeable relations, as experiments in the apprehensions of the properties of matter would show. But it is not our purpose to give a strict analysis here.

Consciousness and Original Suggestion also have their subdivisions according to use; the first giving notice of the existence of the several mental states; the second taking cognizance of cause and effect, individuality and place, number and infinity, duration and power, right and wrong, etc.

The secondary faculties and their functions have been classified in the following manner:

1. Understanding, whose functions are, first the Notion-forming power, which gives us our common ideas of whatever we behold or think about. These ideas may be general or particular, simple or complex, correct or incorrect. Second, Reflection or the power the mind has to dwell upon its own operations or any subject of thought. It is usually preceded by attention and conception, which last may be true or false, vivid or weak.

2. Judgment, including, first, comparison or the power to detect resemblances, or to discriminate:

it deals with the notices furnished by the other faculties. Secondly, classification, which disposes of these, whether objects, facts or theories, according to their several peculiarities. Thirdly, argumentation or reasoning, which relates chiefly to terms, propositions and theorems, and the processes of deducing conclusions from premises.

3. Memory, the great treasure-house of the mind, whose functions are to receive, associate, retain and reproduce, when called upon, the materials entrusted to it for safe-keeping.

4. Imagination, that pioneer of the mind, whose office is to enter into the ideal world, and to gather the raw material, or to take portions of that which may have been prepared, and to combine them into theories and creations, as the judgment or sense shall indicate, and the reason and taste shall decide.

Now any modes of culture that do not recognize these facts and principles or similar ones, are liable at once, to be at variance with the natural order of development. These faculties all have their infancy, youth and maturity, corresponding severally to the periods of growth recognized as the Objective, Transition and Subjective.

It is pertinent now to inquire into the manner in which these faculties may be developed, so as not to interfere with and disarrange this beautiful order and harmony of things.

It will be seen that Perception stands at the head of the list of Primary faculties, and Understanding at the head of the Secondary, and that these two are, in a great measure, concomitants, i. e., the notices furnished by the perception, are readily apprehended by the understanding, and passed on to be disposed of as the judgment may appoint. It will be observed further that the perception is furnished with a set of organs, through which it takes cognizance of the external world; avenues leading inward to the world of thought and abstraction.

Now the object of education is not to interrupt or cut off these communications either way, but to amplify and establish them, at the same time that the materials which go to awaken mind, are furnished through them. Hence intellectual education begins with the senses, through which early knowledge, the food for the mind, is received.

### Article 1–Observation and Experiment.

This leads us at once to modes of learning and modes of treatment or teaching, which for the earliest periods may be denominated Observational and Experimental, because the senses are addressed first; and as soon as the observation or perception is complete, an inquiry as to what? what kind? when? how? etc., is begotten in the mind. This curiosity is planted in the human mind at this early period, for very wise and benevolent purposes. Were it not there, there would be no desire to know, and the child would be in a condition little better than downright idiocy. This desire prompts him to experiment, which is a second step in acquisition. Hence the ceaseless desire in young children to handle, and taste and examine objects; and these again present to them ever new and ever changing varieties, which keep their observational and experimental powers in a state of healthy activity. This early desire for observation is gratified only by indulgence. Color, size, form, temperature, texture and externality generally, constitute the first

intellectual food for the faculties; and experiment is one of the first processes, or exercises of application.

The motions, sounds and general phenomena now attract the attention of the youthful learner, and he opens his eyes and ears upon the wonders with which this new and strange world abounds. The senses are astonishingly active in conveying their impressions inward, where they do their office work in awakening the incipient mind. But this subject, as it relates to very young children, has been alluded to in another place. This brief notice therefore must suffice. It is. however, a department of education, full of intense interest; and one with which the teacher should be very The more he knows of the infant, the familiar. better will he be prepared to know the man; and knowing him, to direct him.

SECTION 1—REPRESENTATIVE KNOWLEDGE.—The next advance the child makes from the object world, where his faculties are employed chiefly with things and their properties, is into the picture period, or period of representative knowledge. This has also been described under the head of physical culture, which is so nearly allied to intellectual culture at this age, as scarcely to be distinguished from it. Indeed, about all the intellectual culture a child needs, he will receive in his physical training, if that is properly conducted. At this age his education is supposed to be directed by parents, and its chief object will be accomplished, if he is furnished with the necessary means for investigation—such as toys, pictures, etc., and the necessary facilities for imitating.

Too much special instruction will interfere with the natural order of growth, and discourage the child in

his pursuits. The proper training of a young and tender plant does not consist in excessive handling, or in warping and bending it, but in furnishing it with the necessary means of natural growth. So in reference to mind, or the intellectual faculties. They need no overfeeding or cramming, nor yet do they require bending or incessant handling in order to secure their growth. They need the conditions of growth furnished them in due proportion, and then to be let alone. They grow from their own internal sources, appropriating the external as the means of growth. As much freedom, therefore, as is compatible with proper discipline, is a point to be aimed at here. For the school, however, it will be found that the exercises recommended in Chapter Fifth, Section 1-Hand Culture and those immediately connected with it-will be most effectual in cultivating the perceptive faculties, and in waking up other departments of the mind.

The following exercises are recommended as in harmony with those already given; and they may be used in connection with them.

1. Exercises in counting and numbering, in which the numeral frame or counters may be used; and exercises in pointing, in which not only the points of compass may be located, but all places with which the pupil is supposed to be familiar. The inaccuracies and blunders arising from defective knowledge in reference to direction and distance, are most humiliating. They may be corrected as shown above.

2. Exercises in the combination of simple numbers, as addition, subtraction, and, for those more advanced, multiplication and division, both oral and written, will be found useful in cultivating the power of attention and quickness of apprehension.

SECTION 3—INITIALS AND NAMES.—Oral and written exercises on words representing things, actions, qualities and relations, may be introduced, in which the whole vocabulary of common words might be brought before the mind, and so connected with common facts and transactions, that both their meaning and use could be learned at the same time. The composition and analysis, the reading, spelling, and writing of simple sentences should go hand in hand; so that when a child learns a thing he may know it, retain it and use it.

Thus it will be seen that the tedium of the schoolroom, which becomes so oppressive and distasteful sometimes, may be relieved by introducing these exercises along with others in common use. They are not designed to take the entire place of those now in use except so far as the latter can be shown to be faulty but merely as auxiliary to them; so that that time which is usually spent in idleness, and that energy which is usually thrown away, and worse than thrown away, may be profitably employed.

If it be objected by any that time will not allow the introduction of additional intellectual exercises, it may be answered that if these exercises are as important as those now in use, they ought to share equally with them in time and attention: if they are more important, they should receive a corresponding amount of attention. And we might further add, that no teacher is worthy of confidence, who will persist in sacrificing the good of his pupils to public prejudice when he sees and knows that his practices are wrong.

The most vigorous thinkers are those who have been taught thus early to make a practical use of their knowledge; and the best teachers are those who thus recognize the necessity and the laws of intellectual activity.

### Article 2-Conversation and Description.

That mode of teaching and learning which brings into activity the greatest amount of mental force, and at the same time does not interfere with the order of the faculties, may be pronounced good—nay, the best.

It is a well established fact that mental development is measured not so much by what a man knows as what he does; not so much from acquisition as from the ability to act—to act patiently, persistently, steadily, efficiently. Teaching, therefore, does not consist so much in the communication of knowledge, as in imparting, by a well directed train of influences, the ability to acquire knowledge, to grapple with and overcome the difficulties of life.

It should, therefore, be the constant aim of the educator, to develop man's mental faculties, so that they may harmonize in all their bearings and relations with one another; so that there be no friction in the mental machinery, no jarring, no lagging, no fitful starts or flights, no unsightly growth nor seeming death. To do this it is necessary to call into frequent and vigorous activity all the mental powers, and as nearly as possible all at the same time. This activity should not be merely the activity in acquiring, but in producing.

One of the best modes of inducing this healthy play of all the faculties is by *Conversation* and *Descriptions*. It refers more particularly to primary education, and includes both teaching and learning. A brief description of it may be presented in the following manner. SECTION 1 — INTERESTING NARRATIVE. — Children from the ages of five and six to ten and twelve, are inveterate lovers of narrative, especially if it be of an exciting character. They are eager devourers of stories. Their literature is of an objective and descriptive nature. Hence it is a common thing for the little boy or girl to beset the mother or teacher for stories, etc. Their little minds do not seem to be satisfied with the stores of knowledge to which they have access—and this would be wrong if they were—they must seek it from another source. And during these recitals, mark the attention and the earnest expression. They are lost to all except the incident before them.

Now, this is one of the most educable points in the whole mental and moral constitution; and being most accessible it is assailed from all quarters. This very disposition which was given for the very best of purposes, is rendered sometimes one of the most dangerous, since through it the very fountains of the mind are corrupted: for this reason it should be most carefully guarded.

Again: the observations and experiments children have made, will have furnished them with sufficient stores to enable them to commence upon their own capital. Children delight to relate their own incidents and experiments; and in doing this, they are only pursuing one of the most effective modes of culture.

Tales, Sketches of Travel and Adventure, form a large share of the literature of this age, but too much care can not be exercised in the selections. The characters and the incidents should be of an unexception able kind, since upon their good quality and the mode of presenting them, depends the success of the plan The impressions made should have a refining and elevating influence, or it were better none were made. The ambition to excel may be a holy or an unholy one. If it is prompted by a desire to excel others for the simple pleasure of being above them, it is wrong. If, however, it arises from a desire to excel for the purpose of elevating others to the same point, it is right. This holy ambition may thus, by a judicious choice, be inspired to go forward, conquering obstacle after obstacle, until the aspirant has excelled even those whose noble deeds first inspired him.

Care must also be exercised both in the selections and the modes of presenting these topics, so as not to foster a morbid desire for excitement, which not unfrequently leads to an indiscriminate devouring of every thing that savors of the wonderful or the sentimental. Hence the desire for fiction and fancy. But incidents in history and biography, and in fact this whole subject abounds in that which is not only wonderful but true; and which, if properly presented, will be equally palatable with the overwrought fiction, so much sought after by the young.

These incidents etc., may be related in the school or family by the teacher or parent, and then at suitable intervals, they may be called up in review and recited by the pupil. This will cultivate the memory and the power of narration, at the same time that it will convey a knowledge of most of the important events in history and biography.

Another mode of cultivating the descriptive powers, and thereby training the intellect to habits of close observation and thought, is to require the pupil to give frequent descriptions of common occurrences. This will also afford an excellent opportunity for

cultivating a habit of telling the truth, a habit quite too rare in all circles of society. Many suppose that, in order to make a story interesting, it must be em-bellished with all manner of superlatives and exple-tives; and hence they fall into the habit of exaggeration and falsifying to such an extent, that it becomes almost impossible for them to tell the truth, even when they wish. Though this is a moral evil, it may be corrected at the same time that these other important intellectual results are secured. The practice therefore, of frequently, and it may be at stated periods, requiring the pupil to give a plain unvarnished statement of common occurrences, will not only teach him to tell the truth on all occasions, but will cultivate " his language, his power to reproduce, his habits of observation and thought, and will beget a desire for study and a love for the school. This will be perfectly natural; for whatever children can do well, they generally love to do. And instead of this practice interfering in the least with the ordinary schoolduties, it will only invest them with additional interest, and carry into them the same accuracy and practical earnestness and utility, that characterize the Descriptions and Biographical Sketches.

SEC. 2—SCIENTIFIC FACTS.—There is a large class of Scientific Facts which may be communicated at intervals and during recitations, without any interruption to the regular school duties. It is the most evident intention that these things should be learned early in life, since the mind then is in the most favorable state to receive them, and since ignorance of them often leads to accidents, ill health and fatal results. Those most useful, and at the same time most interesting, are those connected with Natural Phenomena, Vegetable and Animal Life, the Laws of Health and Growth, and a Knowledge of the Arts and Employments.

The air, for instance, is one of the most common substances, and yet its properties are, at once, most simple and most wonderful. Now a few brief allusions to these by the teacher, or what is still better, where it can be done (and I know of no place where it could not), to give a few simple experiments, judiciously arranged, will usually awaken a greater interest in the study of Natural Philosophy and Meteorology, than half the text books in the land. These subjects themselves seem to be specially designed by the Author of nature, to evoke that kind of interest and mental development which, if left without these aids, too frequently slumber throughout the whole period of life. Tell the group of wondering pupils, on some occasion when their minds are in an inquiring state, that the air once breathed becomes poisonous, and is hence unfit for breathing purposes again, until it is purified by natural processes; that this same air that is thus deprived of its animal vitality, goes to the vegetable world, freighted with the very pabulum of life for that department, where it is again purified, and fitted for the animal world; and you awaken a train of thought which may go on unraveling these mysteries until it arrives at the very threshold of Deity. Tell them that trees and plants do really breathe, and you at once beget the inquiry, "What, and where are their lungs?" What better opportunity could occur for a lesson in Botany? The uses of the leaves and flowers will at once suggest themselves. They will readily understand, that in addition to the grateful

shade and beautiful foliage they produce, they have an ulterior object, viz.: the growth and reproduction of the species. Tell them that trees not only breathe, but that they eat; and the wonder of these inquiring minds will amount to astonishment. Let them think over it, and talk over it, before you explain it to them, and perhaps in a few days the whole neighborhood will be aroused to investigation. Books will be purchased, authors will be consulted, and *mind* will be awakened.

Now is the time to describe to them the various kinds of soil, the processes of absorption from it, the ascent of the sap in trees and plants, its distribution to the buds and on the surface of the wood to form the new growth as in the case of forest trees : and, if the season is favorable, remove the cuticle, and the true bark, showing their uses and analogy to the euticle and the cutis vera of the human body; and let them see this distribution of embryo woody fiber. Ask the boys, why they can not make their wooden whistles in midsummer and fall, as well as in the spring, and you will set them to thinking : you will throw an attraction about these subjects, which will make them the themes of constant observation and research.

Tell them that the burning of wood in the stove, the breathing of air in their lungs, and the rusting of iron when exposed to the moisture, are one and the same chemical process; and what better opportunity could you ask, in which to convey to them some of the most important chemical knowledge? It will beget a spirit of inquiry, that will result in more mental development than is ordinarily secured by years of teaching in the hum-drum routine of study and recitation, without these aids. And then again, there are the subjects of rain and hail, snow and frost, heat and cold, dew and fogs, winds and clouds, lightning and thunder, all these are common matters, and are fraught with intensest interest to children.

But the topics need not be confined to one or two departments of science. The earth and the waters, and the departments of Natural History abound with wonders that are no less entertaining and instructive. This is practical knowledge, and its value is greatly enhanced, when it is remembered, that in addition to the above named benefits, this process is calculated to inspire a love for the study of the natural sciences. Animal life itself is a mystery which, while it defies the wisdom of man, presents some of the most wonderful and pleasing phenomena that abound any where in the whole range of science.

The circulation of the blood, the digestion of the food, the processes of growth and elimination, of secretion and deposit, offer the same opportunities for waking up the mind. The flying of birds, the running of animals, the swimming of fish, and all the various phenomena, their habits, the adaptation of supplies to wants, of means to ends, seem fitted by the very hand of the Creator to inspire the young student of nature with a love for her walks.

Then, immediately connected with this subject, is that of a knowledge of the Arts and Employments. Children living in the city exclusively, are usually ignorant of the arts, employments and modes of life peculiar to the country. Many of them can not tell whether flour is made from wheat or corn, whether buckwheat grows on trees or vines, whether butter is 15 a natural or artificial product, whether pumpkins, potatoes and melons are tropical or the products of their native soil. And they are equally ignorant of the modes by which crops are produced from the soil, and how the various products are manufactured into the commodities of common use. The country children likewise, are no less ignorant of city life, and of some of the commonest arts and employments, such as the manufacture of the articles of commerce, etc.

Now if these things are worth knowing, they may as well be learned early in life, so that they may yield a profit; and then they are such essential aids to the practical study of the sciences. They enlarge the circle of human knowledge, and prepare the mind for the successful prosecution of the practical duties of life.

It will not be understood that these suggestions and recommendations shall form exclusive modes of cultnre. This is not their design. They are designed rather as aids to those already in use, and to suggest others more useful.

SECTION 3—REHEARSALS, ETC.—There is another class of truths, more of a metaphysical nature than otherwise, which have a powerful effect in an educational sense, and which are not conveyed directly by the modes heretofore described, but which may be brought before the mind in the shape of maxims, mottoes, sentiments, rhymes, poems, etc. These are simple and direct, and by virtue of the style are peculiarly adapted to the tastes and wants of the young.

Much solid truth as well as encouragement and precept, which might fail to make the proper impression if clothed in the ordinary style, may be

couched in a pithy maxim or motto. And what renders this style still more useful is, that facts and principles in this form are more readily learned and easily retained. Simple poetry possesses the same merits, but great care should be exercised in the selections, so as not to corrupt the taste. All the above selections should be short, terse and not pedantic. Hence it is a good plan to have a large supply of these printed in large type, on cards of convenient size, to be suspended on the wall, where the pupils' eyes, while wandering about, will catch them; and, at times perhaps when we are least suspecting it, they will be drinking deeply of the sentiment. This will have the effect to familiarize the mind with some of the most noble sentiments and important scientific facts, and to inspire the learner with noble resolutions to exertion and perseverance.

It was upon this principle that the Israelites were commanded to "Teach these things to their children," (referring to the commands of God), "to write them upon the palms of their hands and upon the doorposts," where they would most frequently meet the eye. They thus became household words, fixed indelibly in the memory, and became the strongest incentives to thought and duty.

One of the grand objects of education is to learn to think, to train the mental faculties to habits of patient, persevering and persistent thought. The acquisitions are secondary to this, but most easily and readily made through it, and by it.

At the age of which we have been speaking, therefore, the *formation* of *correct mentol habits* is a matter of the first importance, and should be kept constantly . before the mind of the teacher. The education in the ordinary sense, is more than half accomplished when such habits are formed. The acquisitions then become a matter of pleasure.

Now, whatever may be said of the impracticability of these plans for awakening and training the mind to habits of thought and investigation, it is nevertheless true, that they correspond more fully to the order of development and the manner in which children learn, than the ones usually practiced; and that teacher who can not adapt the exercises of the school-room to them, should not teach. If these things can be shown to accord, both with the best philosophy and with the best practice, no flimsy apology for not adopting them should be listened to for a moment.

# Article 3-Investigation and Generalization.

In the preceding investigations and suggestions, we have kept steadily before the mind the order of the development of the faculties, and the best modes of awakening and engaging the attention upon subjects of study. It might be well now to inquire briefly into the means by which this research can be continued without interrupting the harmony of action and order of growth.

The processes, or mental acts themselves, so far as they relate to acquisition and development, may be termed investigation—including analysis and generalization. And the sciences, or subject in which they are employed, may be arranged under the following heads, viz: 1. Physical Sciences; 2, Language and History; 3, Metaphysics.

The term investigation, as employed here, is one of more than ordinary beauty and strength. It may

be made to include all the processes by which the mind makes progress in science. It is the permeating of the mental faculties into the substance of knowledge, tracking it out, through all its various ramifications; and so apprehending it, that the facts and principles become, not only familiar, but are assimilated to the mind itself, becoming a part of it, as the food by digestion and assimilation becomes a part of the living body. Knowledge thus nourishes the vital principle of thought. And in all vigorous and useful learning, the generalization processes follow, and even accompany the investigation as surely as digestion follows eating. It takes up the fragments as they are disengaged by analysis, and arranges them under their appropriate heads, referring individuals to species, and species to genera, until the whole superstructure is complete in all its parts. The power of generalizing is the chief distinction between an educated mind, and one in a rude, uncultivated state.

Again: two minds may be in the possession of the same amount of knowledge, and yet not be both educated. The educated one will know how to use its knowledge; but the merely instructed mind will be at a loss to know how even to retain its stores. Hence the difference in power and efficiency. The processof generalization is, therefore, of incalculable value to a teacher, since it gives him the power to arrange each topic of study in its proper order, so as not to disarrange the natural order of mental growth.

SECTION 1 — PHYSICAL SCIENCE. — The physical sciences afford ample scope for the exercise of a large share of the mental powers. We have spoken of the

manner of introducing these sciences to the notice of the faculties, and the means by which they can be rendered attractive. It will be sufficient for the present purpose to point out a few of the relations and dependencies existing between these departments of science, and the intellectual faculties they were intended to nourish, and to leave the detail to the modes of study, recitation etc.

Nothing has been made in vain. Even the smallest atom of matter performs its humble part in the great economy of Omnipotence, as well as the ponderous globe that rolls in ceaseless grandeur in its appointed orbit. The feeblest spark of intelligence has its appointed sphere, as well as the towering intellect of the tallest archangel. They all exist in mutual relationship. The one would not be complete without the other. They administer to each other's happiness and even to each other's existence. So mind was made for science, and science was made for mind. God made both, and the one for the other. This is most conclusive, and it would be foolish, if not wicked, to suppose that there is any antagonism between them.

Mind lives and expands in science, while the latter, in turn, is enlarged and extended by the action of mind upon it. The benefits are mutual, while the action and reaction constitute one of the sublimest harmonies of nature. Not only is there a general adaptation of means to ends; but it descends to the minutiae. There are grades or steps in the several departments of science, exactly suited to corresponding grades or steps in mental growth. If it were not so, then this order would be interrupted, and science
would mock our hungry minds. But HE who made them, understood their relationship and wants, when he established this Divine order.

Now it is the duty of the educator to seek out this order, and so to adjust the two as to bring them together at points where they will harmonize; for unless they are thus brought together, there will be jarring and contention. The mind will rebel against the uncongenial labor and drudgery, while science in her turn, will yield but a meager bounty. She locks up her storehouses against all unwilling customers, and grants but a stinted dole to him, who seeks her treasures in unnatural channels. The questions, therefore, to be settled at this stage of progress in mental growth, are, what is the extent or degree of development now existing in the individual, and what are the departments and steps in the same and different sciences, best adapted to carry it forward? These points can not always be determined by age, inclination, or by the opportunity enjoyed; nor yet are they the same with respect to any two individuals enjoying the same advantages. Hence the necessity of the most consummate knowledge of a professional character, on the part of the teacher, that he may balance those points nicely.

Perhaps, however, it is not given to human knowledge, in its present imperfect state, to avoid *all* errors in this adjustment, even were the materials furnished to our hands, in a perfect state; but the designs are nevertheless most evident. Because we are, by corruption and consequent ignorance, incapacitated for this duty, is no argument against its existence, nor any excuse for not attempting it, any more than ignorance and neglect in observance of the laws would be excusable, because we were not all first rate lawyers. Much, therefore, should and *can* be done by intelligent effort, to render this subject plain, as the palpable errors now existing would abundantly testify.

For instance: if we could indicate the educational capacity or susceptibility by a, and the degree of mental development by b, then ab would represent the mental condition or advancement of the individual. Now if c could represent the science or sciences, and d the department or departments in them, then cd would represent the educational force. In like manner, n might represent the power or true mode of application. Now when the first two sets of quantities or terms are reciprocally and individually equal, as far as quantities so unlike in kind can be equal, viz.: a to c and b to d, and ab to cd, each raised to the nth power, then would the educational problem be nearly solved.

But whether human knowledge shall ever arrive at that perfect state or not, is a question. It is nevertheless obligatory upon us to endeavor to reach it, since a perfect state of education can not exist without it.

We have two great departments of science, viz.: Physics and Metaphysics, each having subdivisions. These relate respectively to matter and mind.

Mathematics and Language are somewhat peculiar, having characteristics belonging, in common, to Physics and Metaphysics. They are, as it were, connecting links, binding the physical and metaphysical worlds.

The first, as a physical science, investigates the properties of matter, and the laws and forces of the universe. It also deals with truths in the abstract, as the numerical quality of magnitudes, and magnitudes in their relations to space, which give it a metaphysical character.

The second, or Language, sustains about the same relation to these departments; in that it gives expression to all these relations, and the thoughts, feelings and desires that arise in the soul; and it also represents the whole physical universe in its tangible forms, actions, qualities and relations. In these respects it is both metaphysical and physical.

Geography and History are merely local, temporal and descriptive, terminating within the limits of man's possible knowledge. The others reach far beyond. Purely professional science teaches only the right application of facts and principles, evolved from physical and metaphysical research, so as to promote the ends of life.

Here then we have the whole curriculum of sciences brought within this small compass. We might give the several subdivisions, did the necessities of a text-book require it. We therefore leave this part of the work to the learner, whose own investigations and classifications will be of greater service to him than any labored effort here.\*

At the beginning of this section we have given a brief exhibit of the several departments of mind and intellect, the faculties and their functions. We have

<sup>\*</sup>We take this opportunity, however, to refer the reader to a very ingenious classification of the Departments of Human Knowledge, given in a lecture to the "College of Teachers," at Cincinnati, by Roswell Park, and published in the proceedings of that body; also in the "Teachers' Indicator," a valuable collection of those lectures published in Cincinnati.

also attempted a description of the general modes of culture, on through the primary period or that which relates to the perception, and through the secundo-primary, or that which relates to the primary understanding, judgment, memory, imagination, etc. The sciences and the several faculties now stand arranged, as it were, one over against the other. Neither can yield the full result without the aid of the other.

While it is true, that some sciences are more attractive than others, and some better calculated to develop certain powers of mind than others, it does not follow that each faculty elects its particular science, or is elected by any particular one. This would be at war with what has hitherto been advanced on this subject. But the mind, rather, elects departments in all the sciences—itself being elected by all — not however with the same strength of affinity.

It would not answer, therefore, to appoint one particular science to the task of educating a particular faculty, any better than it would to set one particular faculty at work upon one particular science. What could unaided perception or memory do, for example, in mathematics? or judgment or imagination in philosophy or history? or the reasoning powers in language? It requires, therefore, a combined action of all the faculties, as well as the combined influence of all the sciences, to produce the results anticipated by an education.

Natural and Mechanical Philosophy, Chemistry, Agriculture and the Arts, Mathematics, History and Geography, so far as they relate to matter, may be set down among the physical sciences as those well adapted to develop the understanding, judgment and memory, as well as to quicken the perception and reason. The understanding is rendered quick and accurate in its apprehensions and conceptions, by the study of these sciences, not one of which is without its influence. The judgment, in comparison, classification, and arrangement of facts, principles and theories, is chastened, cultivated and refined. The memory has all it can do in receiving, associating, and storing away or retaining the material furnished by the united action of all the faculties, and in reproducing it, when called upon for that purpose.

SECTION 2.—LANGUAGE AND HISTORY.—It now becomes necessary to inquire briefly into the nature and influence of Language and History and kindred sciences. The harmony, mutual influence and benefits are even more marked here than in the preceding. All the faculties, including the imagination, to some extent, find ample room for exercise in Practical Grammar and Composition; Philology, Criticism and General Literature; Chronology, Philosophy of History and Politics.

We will not undertake to decide upon the precise amount, or even upon the exact quality of the influence exerted by any particular branch of study upon the mental powers; for these results would be governed in a great measure by natural capacity, age, advancement, inclinations, and other modifying circumstances. But the fitness or unfitness of each will be determined by the existing wants. Neither will it be understood that if a pupil manifests a fondness for any particular branch that he is to be allowed uncontrolled indulgence in it; nor yet is it the best policy to check him up entirely, thereby, it may be, putting an end to mental activity. The faculties may derive strength in all, or even in a few, of the sciences; but they seldom have a like preference for all. The course to be pursued, therefore, must be determined not by one or a few of these circumstances, but by all of them combined.

The course of study must be determined by the wants, and not the wants by the course of study. It should bend to the scholar, *i. e.*, the real wants of the scholar, and not the scholar to it. This perhaps is one of the greatest necessities connected with courses of study. Nature never bends to accommodate our whims. She often, however, permits us to go unrebuked for a time. Justice often lingers long; but when she does call us to account, her reckonings are most fearful.

SECTION 3-METAPHYSICS.—Lastly it will be proper to inquire briefly into the nature and influence of Metaphysical Sciences.

They stand, perhaps, among the highest for the cultivation of the Reasoning and the Reflective powers. Their influence, however, is not less potent upon the Imagination, and indeed upon all the secondary powers.

The Attributes of Intelligence and Laws of Thought are intricate enough for the most searching analysis and the closest reasoning.

Existence, Duration and Infinity, are broad enough, deep enough, high enough, vast enough, it would seem, for the infinite mind, and hence for reflection of the highest order and the most far-reaching imagination. Man's feeble powers can but falter here; but they gather strength in efforts to fly. Taste, Ideality, Theories and Creations invite the imagination and fancy to revel in the exhaustless stores of their respective fields. They go forth, not alone in their excursions into the ideal world. All the powers accompany them, whence they return, laden with the spoils gathered, it may be, in a hundred battles with Science and Art.

#### THE SCIENCE OF EDUCATION.

SYNOPSIS VII.

		( PHILANTHROPY	Love of kindred. Family ties, Love of the race. Sociability. Equality. Respect. Es- teem. Friendship. Love.
MORAL AND RELIGIOUS CULTURE.	CONSCIENCE.	PATRIOTISM.	Home attachments and influences. Nativity. Laws. Institutions. Love of right. True bravery.
		RELIGION.	Love to God. Purity of heart. Reverence. Meekness. Submission. Adoration. Faith. Confidence.
		MORAL SENSE.	I deas of God the basis of conscience. Ideas of right and wrong. Intuitions. The love of truth. Fidelity. Integrity.
		MORAL DUTIES.	Relating to the family and Social compact Relating to country. Laws. Institutions. Re- lating to mankind in general. Honesty.
		RELIGIOUS DUTIES.	To worship God in public and private. To love our neighbor as ourseives. To visit the fatherless and widow, &c.
		MOTIVE OR PURPOSE.	Instruction in matters of right and wrong. Trust in the rectitude of a higher power. Energy and perseverance in duty.
	WILL.	CHOICE AND INTENTION.	Strengthening good resolutions. Obeddence to superiors. Law. Submission to suffering. Privation.
		EXECUTIVE VOLITION.	Direction and control by superior force. En- counter with difficulties. Temptations. Re- straint. Moral suasien. Energy and perso- verance in duty.

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# CHAPTER VII.

## MORAL, SOCIAL, AND RELIGIOUS CULTURE.

THE Moral Education of man is a theme which has engaged the attention of the educationist and essayist, for the past few years, to a greater extent than almost any other. Indeed, it has become quite an educational hobby. Long lectures, and earnest essays have been multiplied to such an extent, that one would think the world is fast approaching a revolution in its morals and religion. And yet we have a bad world. Notwithstanding Christianity has in eighteen centuries wrought astonishing changes in our civilization, laws and social refinement; notwithstanding she has wrested science, art, commerce and literature from the iron clutch of Paganism, and infused her lifegiving spirit into our political and social institutions; vet I say, we have a bad world-too bad, indeed, for unaided morality and human philosophy ever to reform. Indeed, vice and crime of every dye seem to multiply right in the midst of all this light; and it is questionable whether the world would ever grow any better-nay it is quite certain it would not-under the brightest beams of the most exalted system of human philosophy, unaided by the gospel of Divine Truth. Man's heart must be reformed if the world is ever reformed, and its stains are too deep to be cleans. ed by mere human means. There must be a union of forces to produce harmonious results.

Now, most men are willing to admit these truths; but too many stop with the bare admission of them. But few seem to regard them (if we may be allowed to judge from the amount of attention bestowed upon them in teaching) of any further importance, than a very fine speculative theory. Their practical results are very rarely tested, in connection with our systems of instruction. But the bare admission of the importance of a thing will never bring the thing to pass. The admission that drunkenness is an evil, and that stealing is a crime, will never punish theft or reform drunkenness. Our practice must, in all cases, correspond with our theory, if we ever expect to reform the world.

I have sometimes thought that if a being from some other world should pay our earth a visit, for the purpose of ascertaining what kind of creatures inhabited it, and should happen to alight in some of our school houses, and there form his opinion of our nature, exclusively from the exercises before him, he would wing his way back again, with the mournful intelligence, that man has no soul. For he would hear nothing about it, and see nothing. Nothing would be done, perhaps, from one week to another, to induce him to form a conclusion that man has a moral nature; but, on the other hand, there would be on the part of many teachers, a studied effort to avoid any thing that would lead to such suspicions, or betray the fact that man is endowed with an immortal nature-a living soul. Now, whether such teaching as this will ever effect any thing for the moral and social elevation of the race, I leave for candid and honest judges to decide.

Or suppose again, that we do recognize the exist-

ence of a moral nature in man, and teach the pupil a code of morals culled from the highest-toned moral philosophy man's wisdom ever devised, and yet leave his heart untouched, save by the potency of human precept; think you, there would be the warm outgushing of the living, breathing, loving spirit of Christianity in it? Think you it would restrain him, and sustain him in the dark hours of temptation and affliction? I tell you nay. The fact is, there is no sound and enduring morality without Religion. The best organized governments, and the best modeled social compacts testify conclusively upon this point. Religion, or piety, is the basis of every sound principle and every redeeming feature in man's nature; and the attempts to make him moral without making him religious, are like the attempts to change the leopard to a kid, by feeding it with milk, or to produce a crop of roses from a growth of thistles. The adder's sting is not removed because he is petted like a harmless thing; nor the viper's fang, because he lies in your bosom. We do not say by this, that moral acts can not be performed, and from good motives too, by those who may be irreligious; but we do say, that just as soon as the motive which impels the act, proceeds from the right source, that moment the act approximates a religious act in the truest sense of the term.

Let man's heart be right, and then all the acts proceeding frcm it, will be right also; but let it be evil, and the issues can not be otherwise than evil; because "The same fountain can not send forth bitter water and sweet." "A corrupt tree can not bring forth good fruit, neither can a good tree bring forth evil fruit." "Either make the tree good and his fruit good, or the tree corrupt and his fruit corrupt; for the tree is known by his fruit."

All the cold rules of morality you may hang about a man, if they do not affect his heart, will only gall him like so many chains, weighing him down with their unnatural burdens, and revealing more and more the corruptions of his heart. To throw the white mantle of morality over the dead carcass of sin, is like "painting the sepulchers of dead men's bones." To fill a wicked heart with moral precepts alone, is like the "parable in a fool's mouth," or the "jewel of gold in the swine's snout." True religion, and true morality, are therefore inseparable in their true results. The attempts to sunder them are like the attempt to separate the heat from the fire, the light from the sun, or the colors from the rainbow. The moment you do it, it dies. You paralyze every energizing principle, and the shapeless mass of morality, falls a cold, heartless thing. And the attempts to separate science and religion are not less destructive to the vitality of both, and are doing more, to-day, to destroy the effects they were designed to produce upon the human race, than most men are aware. They were made to go hand in hand.

When we shall come to recognize, in our practice as well as theory, the great fact, that man is by nature a religious and social being, and that morality is nothing more than the legitimate fruits of the right culture of these natures,—or this nature, we might almost say; for they can scarcely be distinguished in their origin and effects, so intimately blended are they in the composition of human nature—then we may reasonably expect the improvements of which educationists have so long dreamed.

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Man becomes circumscribed in his nature and influence, just in the proportion that he is deprived of any one or more essential ingredients or elements of character; and he increases in power, goodness and majesty, just in the proportion that he is allowed full and free scope to all his legitimate powers. If, therefore, it can be shown that man has a religious and social nature, and that upon the right cultivation of these natures will depend his true moral character and greatness, these being the true basis of morality, the way then will be clear for the establishment of modes of culture which shall be effective in moral training; for it is not to be supposed that these things are at all beyond the reach of educational influences. But just so long, depend upon it, as man is treated simply as a moral being, in the sense in which we usually apply that term, without attempting to purify the fountains whence issue the streams; these issues will continue to burst forth, leaping every barrier, breaking down all inclosures and soiling the whitest garments with which he can be clothed.

In making suggestions in reference to moral and religious training, we do not propose to usurp the authority or prerogatives of the church, or even to make theology a branch of study. This belongs to a separate branch of morality, yet not antagonistic to the former. Nor yet do we propose to dispense with any of the institutions of Divine appointment; for herein consist the whole merits of any mode of culture, which has man's true refinement for its object; but we simply mean to make use of means that spring up around man, by virtue of his nature and associations; or that seem, as it were, to be born with him; and which if not used for his moral elevation, will, from the very same circumstances, be turned against him to work his moral degradation.

#### Article 1-Affection.

Man has affections, conscience and a will, as well as body and intellect; and the first three constitute the foundation upon which chiefly rests moral and religious culture. Or, in other words, the proper training of these will result in a symmetrical moral character.

It will be necessary here to distinguish between good affections and bad ones, as the term, by most authors, is made to include the evil passions, as well as the good ones, or moral sensibilities. But all that is necessary will be accomplished by naming those to be cultivated, which cultivation will act as a check or restraint upon those which need this kind of discipline; so that the whole object will have been accomplished by the simple cultivation of the good affections.

The following classification of these affections will be found convenient and comprehensive enough, viz.: *Philanthropy, Patriotism* and *Religion*. These include the love of man, the love of country and the love of God, as the basis of all that is good in man's affectional nature, all that is worthy of cultivation; and out of which grow all the endearing relationships, social, political and religious, that appertain to man as such.

SECTION 1—PHILANTHROPY, in its most general sense means the love of mankind, that general benevolence which takes into its wide embrace the universal brotherhood of the race, which desires alike the freedom, development and happiness of all. It is antagonistic to human slavery, for philanthropy rejoices in universal freedom and development of all man's powers,

physical, intellectual and moral. Slavery teaches man to bind his brother in hopeless bondage. Or if it denies the brotherhood of the two races, it still involves a monstrous iniquity. It mingles those two races, and then allows a man to bind and sell his own race, and to make a chattel of the human soul. It teaches-nav it commands him to withhold the means of intellectual. moral and social refirement, which philanthrophy commands to be given him. Hence it is at war, at once, with the first and great principles of universal benevolence. But it is not our purpose to discuss this subject here. A simple statement of the general principles could not be avoided. This is all that is necessary, in order to teach our children to hate slavery and to love liberty; for, in accordance with our premise, just in proportion as we develop universal benevolence, we create a love for the one, and an abhorrence for its opposite.

But there are other evils of scarcely less magnitude, if not political, at least more general, crying right at our doors; which evils universal benevolence would seek to drive from the abodes of men. We refer to the needless and odious distinctions that prevail in what is termed refined society, by which the child is taught, in the most forcible manner, to respect and love one class of society, and to disrespect and despise the other. This is one of those polite, unobtrusive, yet insidious vices that makes its inroads upon us in the most stealthy manner, taking advantage of the very likes and dislikes of our nature, commencing at the very beginning of our intercourse with the world, and wielding a power over human conduct and human happiness scarcely equaled, and never excelled, by any other vice. It is scarcely less criminal in its ultimate

results than human slavery; since, when it ripens, and takes possession of the human heart, accompanied as it usually is by a lust of power and gain, it teaches man to defraud, devour and oppress his neighbor. It is, therefore, the very root of bitterness in the sin of slavery. It is antagonistic to the law of God and the revealed character of God; for the first teaches to love our neighbor, and the other informs us that he is no respecter of persons.

When shall our people learn the true sources of happiness and greatness? When and where is there a better time, and a better place, to teach these things than in the family and in the school, in which the character of the man and the woman is forming? If it is deferred until later years, that character will be warped by a thousand counter influences. A demagogue and a hypocritical state of society are the very worst teachers of morality and religion—except in a negative way—that could be employed. The questions again recur, "When and where are

The questions again recur, "When and where are the most befitting places, and who are the best teachers of these things?" We answer, as before indicated, "In our homes and in our schools, and by our parents and by our teachers." The home influences and associations are the strongest. The school, which should be modeled, as nearly as possible, upon the same principles, so that it may take up the same course of training, is next in strength, and the stepping-stone from the family to the community of families. Both of these institutions, viz., the family and the school, are only preparatory to the great institution of human society, to which the pupil graduates at an early age.

society, to which the pupil graduates at an early age. Parents are the natural and rightful guardians of youth; and, by virtue of this relationship, they have

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an influence over them that none others can have. The teacher, by virtue of his office, is *in loco parentis*, for the time being, in which position the parent delegates to him all the powers he relinquishes, and even grants him rights and privileges in common with himself. Thus, in a proper state of society, the child is never without a guide—a constant text-book in morals. It becomes necessary now to inquire into the nature and potency of these educational forces, and at the same time, into the modes of applying them.

The love of kindred, or special philanthropy, is among the first affections of the human heart that show signs of development; and hence it demands the first attention. This is exhibited in the first answering tokens given from the child to the mother. The means of culture have been briefly described in the preceding chapters. It may not be inappropriate, however, to add that the love of kindred or family ties-the affections, constitute not only one of the dearest bonds on earth, but the basis also, or germ of universal benevolence. These affections embrace, 1. Parental love, or the love the parent bears to the offspring; and 2. The response to it, or filial love. The fact of its existence on the part of the parent first, is only in accordance with what is observable in every other department of nature, the former acting as a stimulant upon the latter, calling it out and giving it character. It might seem selfish at first, but not more so than all other early manifestations, relating to our sentient organism. The desire for food, for example, is among the first, and seemingly selfish; yet it has the most benevolent object in view. Here then we behold the buds of affection making their appearance among the very first manifestations of intelligence.

Now, if the dews and the showers, the sunshine and he shade of parental love, are shed upon these, in due proportion, they will unfold their tender leaves, revealing the morally beautiful, just as surely as physical beauty is developed under corresponding influences in the physical world. But how they wither and die, or take on some monstrous growth, when nipped by selfishness and neglect, or scorched and blasted by the hot breath of anger and revenge! Hence, those corruptions of the affectional nature, that manifest themselves in the form of the evil passions. They do not exist because they were planted there by the hand of the Creator: they are nothing more nor less than the fruits of a monstrous, perverted or dwarfed growth of the good affections, produced by the poisonous breath of sin. The family, therefore, and school, which is only a generalized family, should contain all the nurturing elements that feed those tender plants, until they shall strike their roots deep in the soil of the human heart, and lift up their branches to the sunlight and the breeze, and shed their fragrance upon all the surrounding world.

It is wonderful to witness all the manifestations of a human being, even for a short time. In doing this, it will not be sufficient to take cognizance of the extraordinary occurrences alone: the ordinary events, and the common occurrences are the true indices to the nature and wants of the child. Every motion and every desire is significant of some passion which is destined to reign or riot in the human heart. They only appear insignificant because we do not comprehend their depth of meaning.

To an uncultivated mind, and an eye unaccustomed to trace the delicate workmanship of nature, a ledge of recks presents nothing but a huge, misshapen mass. But the student of nature sees harmony and beauty in every part, and reads in legible characters the dates and names of the several geological periods. Both of these individuals may look upon a meadow, clothed in verdure; the one sees nothing but grass, the other sees a hundred beautiful flowers. They listen to the music of nature: the one hears a noise, the other listens, transported, to the rapturous hymnings of harps attuned to the sweetest melody. The one can scarcely bear the tedium of nature's walks, or the long, dull silence that reigns in her bowers; the other recognizes himself addressed by every sight and every sound; and if he had a thousand eyes and a thousand ears, he could find employment for them all, for every hour.

Thus it is with children and teachers. One person looks upon a child. He sees nothing but a rude, meddlesome, deceitful pest, and usually treats him accordingly: the other sees slumbering there all the elements of true manhood, nobility and godlike power. The one sees in every look, and motion, and thought nought but selfishness, craft and guile, and treats him with every mark of suspicion and disrespect: the other looks beyond the mere outward act, to the motive that impelled it, and by a word or look he anticipates his desires and checks the rising storm, or feeds the noble flame.

So one mother hears her infant when it cries, and she administers to its wants, as she does to the calf's or the pig's: another hears it even before it cries, and feasts it upon the pure milk of human kindness. The one hears in those torturing screams, nought but the rude expressions of selfish desire, or spleenish want: the other analyzes those infant wails, and recognizes

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in them the tones of anguish or anger, of suffering or legitimate desire; and knowing, she is prepared to treat those desires judiciously. The one hears an angry broil among her brood, and rushing in with wicked words and maddening blows, dealt right and left, she assaults the contending parties, and succeeds in putting them to flight, and it may be to silence. But what a silence! Mark those flashing eyes, as they gleam, fiery red, each upon his antagonist from their lairs, and shoot their angry arrows into each others hearts. Think you they are subdued? So then is the tiger chafed by his prison bars. The other hears the contentions of her little ones, fierce it may be, but her heart swells, unutterably full of emotions, for the future of the man; and, with these struggling for utterance, she speaks, but not in anger. Her melting tones fall upon those hearts like oil upon the troubled waters; and the little ones, attracted by their sorrowful tenderness, glance quickly into that tearful eye-their anger is forgotten. They hasten to their mother's arms-the asylum from the storm-to seek her pardon and a reconciliation.

Now we have drawn two pictures from real life, it may be one from each extreme; but the intermediate grades are scarcely less influential. We leave them to be filled out by the reader. Under the latter treatment, the elements and conditions are favorable to a vigorous growth; and as the processes go forward, these desires ripen into other forms of affection. The little children have been taught the first lesson, at least, in morals and religion, viz.: "to love one another:" and these affections, losing none of their essential characteristics, as a filial bond, go on widen-.ng, and deepening, and strengthening, until they embrace the whole human family. The very affections that cling so tightly about the mother, father, sister, or brother, gather sufficient nourishment and strength from these sources, to enable them to shoot out their branches and tendrils, and to entwine about other objects; and hence commences a more comprehensive growth—a love for the race. This prepares the way for social culture. We have spoken of the first, viz., General Philanthropy, or a love of the race, at the beginning of this section. We shall therefore devote a few pages to the latter, viz., Social Culture, as a means of securing the highest degree of moral and religious development. We shall commence by noticing some of the hindrances to the progress of religion, arising out of a want of social development.

One of the chief hindrances to the progress of morals and religion, is the cold and forbidding aspect these subjects seem to wear to the young. But these are by no means their natural garbs; they are only those which have been thrown about them by a mistaken idea as to the true nature and intent of these subjects. If any thing in the wide world should be attractive, it should be piety or religion, which has the same import as wisdom, as used in the Bible. "She is a tree of life to them that lay hold on her," etc. "Her price is above the price of rubies." "Her ways are ways of pleasantness, and all her paths are paths of peace." "The path of the just shineth brighter and brighter, unto the perfect day," etc. Bat it is unnecessary to extend evidence upon this point. The whole Bible is a mountain of testimony; and ten thousand living witnesses have testified to the same fact. Beauty and truth are inseparable companions. They are both equally attractive to the moral nature of man.

It will be necessary, however, to distinguish between the really beautiful or attractive, and that which is deceptive, having only the appearance—between sen-sual pleasures and those of a higher order. Religion or Wisdom ever represents the latter, and in that sense she should be held up to the young. She deprives man of no rational enjoyment. Indeed she hightens every earthly pleasure, and assuages every earthly sorrow. Every earthly blessing grows doubly dear, when piety throws her pure mantle over its enjoyment. It is true, she teaches us to deny ourselves of the sinful pleasures of the world; but in this we only exchange dross for gold. She teaches us to "take up our cross," etc., and to wage a continual warfare against sin; but in all this, we are more than compensated, not only by the peace of conscience, and the lively hopes and joys inspired within, but by the conscious strength we acquire; and the very air we breathe, becomes more precious, because of its source. Our friends become more dear, because we can love them with a purer, intenser affection. Our property is enhanced in value to us, because we can use it (in which consists the only pleasure we can derive from it) to promote the happiness of our fellow men, and to advance the cause of our Master.

If any body should be happy, it certainly should be ne who has a title to both earth and Heaven. If any body on earth should laugh, it should be the good man; if any body should mourn, it should be the bad man; for "the way of transgressors is hard." "The wicked are like the troubled sea that casts up mire and dirt." "There is no peace for the wicked, saith my God." "The lamp of the wicked shall be put out." All the family and social ties are rendered doubly dear, because they are hallowed by the sacred influences of piety. But while it is our purpose to show the nature and necessity of social culture, it seems necessary at the same time, to show that such culture will not be antagonistic to man's religious nature.

That man is a social being, no one but a hermit would deny. We have shown that he is a religious being, and a moral being. Now if his social nature is in *antagonism* with either of these, we at once discover a war among the constituents of man's nature, which criminates his Maker, and makes man the sport of contending forces. In assuming the foregoing position, it is not necessary to assert or deny that the good in man is continually waging war against the evil, and the evil against the good. This is entirely an independent issue, involving the circumstances and effects of the fall; and whatever views might be taken of that, would not at all interfere with the first position, viz.: that man has a social nature, demanding culture, in common with other departments; which culture, so far from interfering with the others, constitutes one of the strongest and the safest aids. Neither is it sufficient to say that this department will provide for its own necessities. The instances of lamentable deficiency, as well as perverted growth, prove an entire refutation of the position.

It becomes necessary therefore, to point out some of the modes of culture to be adopted, which will not interfere with, but will promote man's physical, intellectual and moral growth. And here it might be well to add that the chief, and perhaps the only reason that modes hitherto adopted, have proved faulty or insufficient, is that they did not recognize all there is essentially in man; and the fact, that in order to make any one department of education successful, it must be accompanied by all the rest. And because they have failed, to some extent, the task has been abandoned as a hopeless one; or it has been handed over to those entirely incompetent, who have prostituted every power to pleasure, and to the gratification of the senses. These have failed more signally than any others, since they have attempted to develop man's social nature, not only independently of his morals and his intellect, but in direct opposition to them.

Now we hold it as a cardinal point, that the good things of this world should be in the hands of the good, since none others seem so well fitted to enjoy and perpetuate them.<sup>.</sup> It is equally tenable, that they should have the control and direction of the educational influences, since these are among the good things. The moment they relinquish their hold upon any one or all of these, they fall, from necessity, into the hands of the bad; since they must exist somewhere, and there are but these two classes of persons in the world, among whom they can exist.

Nothing, therefore, can be clearer to one having an unclouded perception, and an unbiased mind, than that the social nature of man does need attention, and that these influences should be looked after, since they invariably take one of these two directions. It follows also that the direction of man's social culture should be in the hands of the wise and the good, since it is a matter of such delicacy and danger, that it least becomes the hand of a novice or a knave.

The inquiry then arises, what shall be its nature and characteristics? In answering this question, it will be necessary to revert to man's original constitution and natural wants. These can only be determined by careful study, which will reveal the fact that he is a being of unabated activity, and ceaseless desires; that he invariably seeks companionship with his kind. He seeks *company* that he may give vent to those social desires and induce a lively activity of the faculties, since in their activity their pleasure alone consists. Now the questions arise, what shall be the nature of this companionship, and what employment shall engage his faculties; since upon the right or wrong determination of these points, will depend the success or failure of the whole thing.

In answer to the first, all will agree that the better the companionship, the better for the man. He would derive little benefit from the companionship with monkeys or savages. His habits and character will partake more or less of the influences surrounding him. Hence the higher, purer, holier and more refined those influences, the more beneficial the results become. And it is proper to remark here, that his regard, respect, esteem, friendship and love all rise or fall to the same level, and will take their character, to a great extent, from the qualities of the objects upon which they are bestowed: i. e., the purer and more exalted the object of affection, the purer and more exalted the affection itself. Hence a man can not love a horse or a erocodile as he can love his own species. The seeming exception to this rule is accounted for on the principle of perverted affection.

It is equally manifest that if companionship of the highest order is withheld, man will seek that of a lower grade. But, that he should seek that of an inferior order, without some strong reason, would be as strange as that he should love deformity and hate beauty, or that he should seek pain and shun pleasure.

We have cases on record, it is true, of man's seeking and cultivating companionship with the inferior animals, and even with insects; yet this has always occurred, when he was driven by crime or other eircumstances from the society of his own kind. Here, then, we have a true index to man's companionship. It should always be with his own kind, and should partake, as largely as possible, of all the ennobling elements and refining influences which shall give a harmonious activity to all his faculties, intellectual, physical, social and moral.

Now the question arises, since man has found his companionship, and since this calls for employment, What shall this employment be? Shall he do good, or shall he do evil? is *the* question to be decided. We have spoken in preceding chapters, of the various kinds of employment, suited to man's several wants such as labor, study, recreation, etc., but have not spoken particularly of social amusements.

That the desire for amusement does actually exist in man, no one can deny. But whether it is there by command or consent, is a question that might trouble some. In either case, we are under equal obligation to provide for it, or for its removal. We infer that it exists by command, since God has made such abundant provision for its gratification, and since it is, in itself, both innocent and useful, as we shall have occasion to show as we proceed. Now if God has created nothing in vain, then the desire for amusement is for some purpose. If it is for some purpose, that purpose is either a good one or a bad one. To admit the latter would be to charge God with evil. Says Dr. Paley, "We never discover a train of contrivance to bring about an evil purpose. No anatomist ever discovered a system of organization, calculated to produce pain and disease; or, in explaining the parts of the human body, ever said, 'This is to irritate; this is to inflame; this duct is to convey the gravel to the kidneys; this gland to secrete the humor that forms the gout.' So in relation to the faculties of the mind. Who has ever discovered faculties there designed to demoralize and debase us? Who in explaining them ever said, 'This is to make you profane, this to make you intemperate, this to make you cruel, and this to make you dishonest.'"

This is a very fair exposition of the argument, and shows conclusively that God has not only not made anything in vain, but has made every thing for some wise and useful purpose. He has made man just right, and the world in which he has placed him, just right. All the wrong is chargeable to man himself. Another proof that the desire in man for amusement is a natural desire, is found in the fact that he has, from time immemorial, sought after it; and where attempts have been made to deprive him of it, they have resulted in disaster to some of his powers by entire abstinence, or driven him to excess in an opposite direction; as the monkish asceticism on the one hand, and the shameless abandonment to pleasure on the other, are but too sad commentaries.

Again: The laws of God, as revealed in his written word, as well as upon every object of nature, and especially in man's own body, as well as upon his mind and morals, all testify, as with one voice, that man needs amusement just as essentially as he needs his food and sleep; and that if he is deprived of it, though the disasters are not so visible, yet they are no less certain.

And again: the young of all animals play. It is as natural as that the sun should shine when it arises, or that plants should bloom and thrive under his genial influence. Children need play for their physical and social development. Without it, they would become a race of drones and misanthropes. If there is any thing in this dark world, calculated to make glad hearts, it is the merry sports of childhood and youth.

But the old need it also. It will not answer to say, that this is all well enough for the young, but that the old should abstain from such frivolities. They need its life-giving influence; if not to engage in it themselves, at least to witness it. It is the sunshine of life. It makes them live over again their youthful days, and infuses new vigor into their bodies. It were as grave an error in philosophy that should teach that the aged and middle-aged do not stand in need of amusements, even if they be of a graver sort, as that would be which should teach that the sunshine and the showers are all well enough for the flowers and the tender plants, but that the giant oak and the ripening grain have no need of such light and triffing things. How long would the oak live without sun or rain? When would the grain ripen? We have an answer to these questions in the untimely death of mortals, and the unripe condition of mind, body and morals.

The question, therefore, is no longer "Shall we have amusements?" that is decided. It is now, what kind? And who shall superintend them? The first would involve a longer description than the limits of this chapter will allow. We would simply remark, however, that some of the best and most ennobling of these amusements have been discarded by the religious world, as vicious and contaminating in themselves. And because they have thus been driven out of the best society, and all moral restraints removed from them, they have sought refuge among the vile, and have hence become contaminated.

Whether, upon the whole, it would be wise to attempt to purify and reinstate these amusements, is an open question. It is nevertheless certain that they either should be, or else others of equal merit should take their places. This conclusion is inevitable from the nature and constitution of the human race, as well as from the sad abuses to which amusements have been prostituted. One of the most popular of these social amusements, and the only one to which we shall call attention, is that of dancing, at once a science and an amusement, and in itself entirely innocent when properly conducted; as much so, surely, as singing, or walking or talking; yet unfortunately, like poor Tray, it is suffering from being found in bad company.

Now since men and women, and boys and girls, will, and must from necessity seek society; and since this institution is organized for the benevolent purpose of refining the feelings and manners of its members, as well as to contribute to their enjoyment; and since when thus assembled, the time either drags heavily and uselessly on, or else is filled up with vain, insipid and trifling conversation, or—what is still worse, since all the powers want activity—with boisterous plays, and rough and uncultivated and uncultivating conduct; and since health, intellect, morals and physical development, grace, ease and dignity in bodily movements, as well as a healthy flow of good nature, all seem to entreat for some employment and cultivation; and since, in the great majority of instances of intercourse, the usefulness, and consequent happiness of the individual are measured by, and are dependent upon, his ability to make a proper use of *all* his powers, especially those which relate to personal address; therefore, it does seem necessary that some amusement, having the greatest possible number of these objects in view, at once simple, cheap, harmless and attractive in itself, should be adopted for the benefit of all classes.

. If it be objected, that dancing would lead to balls, routs, masquerades, and all that giddy dissipation which now form the chief, and indeed, almost the only valid objection to it; let it be answered, that these are mere accidents, and mostly traceable, too, to the neglect of those who complain; but that they are not the necessary results, any more than the extremes or excesses in other employments are necessary. It is not a valid objection against singing, for instance, that it happens to be prostituted to base uses; nor yet against language, because it is employed by the vile to convey bad thoughts. What would be thought of the moralist, for instance, who would not talk, because somebody had made a bad use of language.

But if any thing better than the dance can be adopted, *let it be done:* no good man or woman, certainly, would object; and the bad might thereby be the more easily reclaimed. But there is that about the dance, when conducted to the sweet strains of music, which renders it at once the most pleasing, soulcheering and refining, both to body and mind, of any mere social exercise. In saying thus much we are not pleading for nor apologizing for the miserable abuses of this practice, the objectionable forms which have obtained in the most corrupt classes of society. It is not more necessary to include these in this science, than it is to admit all the vulgar songs in music, or all the obscene and profane words in language. The fact is, all those irregularities and abuses would gradually disappear, if the science were cultivated, and the practice recognized and superintended by the wise and prudent. It is questionable whether any exercise, whether social, religious, or otherwise, would survive long, in its purity, were it subject to like abuses; and it is quite likely that many of the social and religious exercises, if not all of them, would be liable to as fatal extremes, were they submitted to as rude hands.

This leads us to remark, in the second place, that this exercise, in common with all other rational amusements, needs regulating; or like all others committed to the young and inexperienced, it will run into fatal extremes. And first, it should be regulated as to time, place and frequency. Let us glance at the present practice. Notice is given that in six weeks there is to be a grand Fourth of July or Christmas Ball, at such a place, and so and so. Tickets of invitation are circulated, but not always to the most worthy. Of course, it will be a grand time, and the excitement begins to rise, to the neglect of other duties. Preparations are to be made, and a needless expenditure for clothing never again to be worn, must be ventured. The time arrives: and the parties, illclad it may be for the season, assemble; and under the most exciting circumstances the exercises commence. But the room is ill ventilated (yet it must

needs be closed), and the air soon becomes vitiated. The youthful revelers become intoxicated, mad with pleasure, and heated with excitement. No one is there to check them—no father, no mother to chide or counsel, no minister of grace to mingle his seasonable advice,—they are all young, and anything like moderation would be treated lightly or with suspicion, at least.

Father or mother, do you see your daughter there, whirling in that giddy throng? Do you see your son there, reeking in excitement? Look, but tremble for their safety. The soul and body are both in danger. ..... But attend longer. It grows late in the evening—Nine. .... Eleven. .... it is One; and they may have been thus engaged from One or Three of the preceding day. But, "on with the dance," and dissipation now becomes more bold; and dissolute conduct and the vulgar jest mark the demeanor of that young ..... But we quit the scene. The hour is now four in the morning, and the youthful revelers repair to their homes; but think you with light hearts? The past to them appears like a dream; but it will not soon be forgotten. They go to their homes, amid the exposures of inclement weather and poor protection, to spend a blank, unhappy day, dreaming in morbid sentimentality over the last night's revel.

Now, is this physical culture? Is it intellectual culture? Is it moral culture? It is neither. It is downright murder of body, mind, and soul! Yet, who is to blame? Who but those who have the power to correct these abuses, and will not use it? Who would be to blame if you, parent, kept your child in such a situation that his physical powers had become so reduced by hunger as scarcely to possess vitality, and

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the mind judgment; and in this starving state, you should turn him loose to a table loaded with all the delicacies and dainties of a refined restaurant, if you should find him in a few hours a bloated corpse? Who would then be to blame? Nothing but necessity and ignorance would excuse you in the eyes of the law. But neither of these would excuse you in the eyes of God or the world. And yet your conduct, in reference to your child's amusement, has been perhaps precisely of this character. He has been deprived of the privilege and benefits of it at home where it belongs, it may be for months at a time; and then, on some extra occasion, he is turned loose without any restraint, except the feeble resistance offered by his own judgment, to glut himself to repletion upon that which is most intoxicating. What could be expected but excess! It were far better not to indulge at all, or to get a beggarly subsistence upon that which is thrown out by the wayside, than thus to abuse our powers.

But this is only a faint sketch of the evils of modern dancing. What remedy shall be proposed? What but that which should be prescribed for any other natural want? *Regulate it*, both as to time, place and frequency. Regulate it, or abandon it altogether! The time should not infringe upon the hours of labor, devotion, or rest. No midnight revels should therefore be tolerated.

The place should be free from all the objections described in our picture, and should, if possible, be at *home*; because it is a home and family amusement, as much so as family devotion is a home exercise, though both may be practiced abroad. And here allow me to ask, what impropriety there would be in bringing these two exercises together, or at least in close proximity? For if amusements of this kind are worth any thing—if they are right, they are worth asking God's blessing upon; if not, it were better to abandon them.

The same regulations with regard to frequency should be observed, that obtain in other habits-as in sleeping, for instance. The objects will not be attained by resorting to them once a week, or once a month, or only on extra occasions, any more than the objects of eating and sleeping could be secured by resorting to a similar course in reference to them. Other regulations might be offered, as to mode and degree of exercise; but they will readily suggest themselves, if amusements of this character are entered into, with a proper spirit, and with a proper object in view. As to the former, however, we might add that all modes or figures that have the slightest tendency to excite undue levity or mirth, or to awaken evil desires, should be studiously avoided. No crazy waltz or giddy polka, or any other objectionable figure, should ever be allowed a place in the social circle, much less in the family training of boys and girls.

But who are to be the superintendents of these exercises? We have just seen that it is no more safe to intrust this department of education to children themselves, or to wicked and designing men, than it is any other department. The answer then to the question is this: The leading minds in education and religion. If the wise and the good do not regulate them, the wicked and profane will; because they must exist, and it is for the former to say, whether this important educational force shall be wrested out of their hands or not.

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If amusements were under the strict surveillance of the parent, the teacher and the preacher, just as other departments of education are, and treated in as rational a manner, we submit, would not the evils arising out of them speedily disappear? But until these functionaries shall come forward, and proclaim a reform in them instead of standing off at a respectable distance, and hurling their anathemas at them, the probabilities are, they will continue where they are, or perhaps will retrograde.

This mode of suppressing the evils resembles the ridiculous farce of Dame Partington, armed with her mop, disputing the right of the sea to the possession of her own humble dwelling. And it is reported that the sca beat the old lady in that memorable contest, notwithstanding her excellent mode of warfare. So we are apprehensive, the battle with these amusements will most likely terminate, unless the mode of attack is changed. The fact is, any attempt to suppress these amusements without providing a rational substitute for them, is too much like the attempt would be to remove all food or exercise from man, because it so happens that some food and some exercise are not profitable, or that some men become gluttons, and others kill themselves at hard work.

We have spoken candidly, frankly and somewhat pointedly upon this vexed question. We have tried to show the absolute necessity for safe and wholesome amusements; and we have pointed out the errors and excesses, and shown the necessity for moral and religious restraints as the only corrective. We were compelled, from absolute necessity, to take this ground, however reluctant; because we conceive it to be wrong to attempt to conecal any part of the truth. 18 We therefore leave the reader to form his own conclusions after weighing carefully the testimony pro and con.

SECTION 2—PATRIOTISM.—The next topic under moral and religious culture, claiming attention, is that of *Patriotism*.

It may not readily be understood how this subject belongs to morals; but it will be seen, upon closer examination, that the influences which cultivate a true love of country, and inspire the spirit of bravery, are of a purely moral character, and can be traced back, in most cases, to home attachments and influences.

Again: it may not at first be easy for every one to see how this virtue can be cultivated in the school or family; but a little reflection will disclose, not only its true sources, but the surest means of development. Home, if it is a home in the truest sense of the word, is the most hallowed spot on earth. With what fondness we are accustomed to revert to scenes of early childhood! Our weary pilgrimage in life may have cast a shadow over our brightest prospects; and our present abode may have become anything but desirable; but there is usually one spot on earth, about which the memory lingers with a dreamy fondness. That spot is the dear old home, where the world first revealed its wonders to us.

The traveler, far from his native land, when night closes in upon him, instinctively turns to gaze upon the setting sun; and quick as thought, visions of the past and of the dear native home flit across his mind, and he lives over again for a few brief moments his childhood days. The soldier, dying in a foreign land, breathes in his comrade's ear his last faint accents of

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home and the loved ones there. The mariner, struggling upon the wave as his gallant barque goes down, catches glimpses of home, and his last sad wailings, mingling with the crash of waters, tell but too feebly how he loved his home. If this were not sufficient to prove the love of home to be an affection, worthy to be cultivated, that inimitable ballad, "Home, home, sweet, sweet home," etc., is sufficient of itself to canonize the feeling, and to render it ever a matter of pleasure to think of home. There is therefore a home affection, and this constitutes the basis of patriotism. It only needs, like other affections, the fostering hand of the true teacher, to give it its proper direction, and the affections expand, and embrace the whole home eountry.

Now, just in proportion as home, the mother of patriotism, is made home-like and happy, will these attachments grow and become, not only among the strongest barriers to the incroachments of vice, but a sentiment, when fully expanded, that will be one of the strongest ties to fatherland. It will soon go out and attach itself to country, laws and institutions, and become the strongest motive for the defense of the right. This presupposes, of course, that these laws and institutions, etc., be based upon sound principles. Otherwise there might be alienation and rebellion, instead of attachment and patriotism.

It will readily be seen that when the home and its surroundings are such as to inspire these warm attachments, the individual not only derives the greatest enjoyment from them, but he is cultivating those affections which constitute the basis of true bravery; for what is that patriotism worth which has no stronger incentive than mere mercenary motives, or the lust of power? The spuriousness of such patriotism has been fully tested, and the genuineness of its opposite fully established, in contests between parties actuated—the one by mere passion or the lower propensities, and the other by those lofty sentiments of honor and affection which arise from this early home attachment, and from a consciousness of right. Our own country affords examples of this, while all history abounds in similar testimony.

Let home be made the pleasantest spot on earth, and children will instinctively love it; and in indulging this natural desire, they learn to love their country, laws and institutions.

SECTION 3—RELIGION. — Nothing is more apparent than that man is prone to pay religious adoration to some being, either material or spiritual. There is both a contrivance, which indicates design, and a sphere of action to suit the mechanism of the human soul, which clearly point out its destiny.

When man was first created, we can easily imagine him to have possessed all his faculties in a state of perfection. Every power glowed in an eestasy of delight, and moved in perfect harmony with the world of beauty into which he was introduced. Not a jar, nor a discordant note, was to be heard in all the glad anthems that ascended on high "when the morning stars sang together, and all the sons of God shouted for joy." Man walked abroad in all his innocence, majesty and beauty. And such was the exaltation of his powers—even the same powers that he now possesses—that he held direct intercourse with his Maker. But in an evil hour he put forth his hand to disobedience and fell from his exalted position. A moral

night ensued, more dense and terrific than that, when the Spirit of God moved upon the great deep of chaos, and brought light out of darkness, and order out of confusion. A blight came over the whole face of nature, and the ground was cursed for man's sake, requiring additional physical toil to subdue it. His faculties partook of the general blight, descending to a fearful depth of depravity. He goes forth to struggle with his fortune and to finish his career, but not without hope; for no sooner had the fiat which drove man from the garden, gone forth, than preparations were made for repairing the breach. Even the command which is supposed by some to contain the heaviest curse, to wit., "In the sweat of thy face shalt thou eat bread all the days of thy life," etc., is big with mercy, and contains the very preservative element of the race, viz., labor; for without it, man would sink into imbecility.

No sooner therefore had man fallen, than infinite goodness and wisdom set about devising his redemption. A ransom is provided and promised in the fullness of time, but a struggle for his faith here was necessary as well as sweat from his brow in the physical world. The first should win life to his soul; the second, bread for his body. In this we see not only man's redemption, but his education epitomized, and religion, or a reunion with his Maker and a renovation, and a reinstatement of his faculties are most clearly recognized; for "As in Adam all die, so in Christ shall all be made alive." Christ, or the second Adam, therefore becomes the medium through which man is again to approach his Maker-the link that is to reunite that which was alienated by sin and wicked works: for Christ who knew no sin became sin for us, i. e., satisfied the demands of a broken law, and thereby reconciled believers to God. "He took upon himself not the nature of angels," but assumed our humanity and God's divinity, that he might effect this reconciliation, which seemed impossible ou any other terms.

Now, if this is the nature of religion, why should we either fear it or be ashamed of it? Why should we esteem it lightly or even a sacrifice, since it confers upon mortals the most exalted relationship and honor that can possibly exist, even the relationship of sons of God, and heirship jointly with Jesus Christ the Son, to "an inheritance incorruptible, undefiled and that fadeth not away." Such in brief, is religion, and as such, it now becomes necessary to inquire how it can best be inculcated in the hearts and minds of children.

By referring again to man's original or natural constitution, we find him possessed of certain marked peculiarities, which render the inculcation of religion a matter of necessity, in order to cancel all the claims his own desires have upon him. Man's whole affectional nature is but a living and perpetual commentary upon religion; and one of the most interesting features of the home attachments and love of country, etc., as described above, and of philanthropy or the love of the race, both general and special, as described further back, is the ripening or culminating of these affections into the purest, holiest and loftiest sentiments that can actuate the human mind—I mean the love to God the crowning excellence of all love and all affection.

The student should be careful while investigating the nature of man's affections, not to confound their use with their abuse. For instance, we speak of philanthropy or love of the race, and patriotism or

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love of country, etc. Now the legitimate sphere of these is diametrically opposed to that inordinate affection or lust of power or gain, which is denominated in holy writ, the love of the world, which is enmity against God. This is the very antipode of those affections which we should seek to cultivate. We believe the world and all that is in it (sin excepted), are legitimate objects of love instead of hatred; that when properly loved, they lead us to the great source and fountain of love, and the object of adoration. God so loved the world that he gave his only begotten son to die that he might redeem it. And shall we hate it?

The very fact that those things which were made for our comfort and happiness, and which should be the means or instruments of leading our affections outward and upward, are made objects of suspicion, dread or aversion, by a misguided apprehension of sanctity, constitutes the strongest reason why religion, the true source of all happiness, wears, to some, such a repulsive demeanor. In consequence of our ascetic notions, we often defeat the very object we wish to accomplish, viz., the inculcation and development of religious sentiments and feelings in the hearts of children. We do not make it a matter of every day duty and conversation. We only bring it forward on extra occasions, and allude to it in the most *awful gravity of style*. This makes children dread it.

Now I would not divest it of any of its awe or majesty, or give it any other character than what it really has; but I would invest it with its own lovely character. I would connect all our happiness with it. I would make it one of the most attractive subjects of conversation, instead of one of the most forbidding. I would make all other interests and exercises bend to this. I would hallow life's duties with it. Indeed, I would make it the one great object of life, and mingle it with every earthly enjoyment. It would thus sanctify every other blessing and defend its possessor against the encroachments of vice. It should be worn as a shield, rather than as an amulet. It should defend man, rather than that he should defend it. It should be his strength, rather than his weakness. It should be his delight, rather than that he should sanctify it. In a word, it should be the star of his hope, and the crown of his rejoicing.

But we can not better illustrate this point than by quoting a few pungent passages from a little work recently published, entitled, "Life Made Happy." The author is laboring to prove that religion is happiness, not misery, when he remarks, in effect, that "there is one aspect in which asceticism is still more destructive to the cause of Christianity than almost any other one thing. I allude to that strange feature in the character of the great body of Christians-that their religion does not seem to set pleasantly and happily upon them. They do not wear it as they would a precious jewel, where it may be observed by all that meet them. They don't clothe themselves in it as a garment of every day. How seldom is religions conver-sation ever ventured upon on ordinary occasions! How seldom is it brought forward, except when it must be! How seldom do we see a man who enters into religious conversation as freely, as easily, and apparently as happily, as he discourses about his business! Why is this? The reason is obvious. Religion is made a very solemn and a very gloomy subject. Is it not so? Does your pastor, does any one address you on the subject in the same tone of voice, with the same joyous countenance with which he addresses you on other subjects? Is not the introduction of religious conversation a signal to hush all joyous sentiments, and to call in all the smiles? Is it not required? Can it be expected that our religion will be worn by us every day, if it must be done with a cloud on our brow? Or can we be expected to obtrude it upon others if the effect of it is to cloud their brows also? No! Religion can never be an every-day matter, can never enter into our common conversation,—it can never be a part of our lives, while it assumes its present gloomy character.

The gospel of Christ can never command that success which it is calculated to meet with, and will meet with, until that ascetic dead weight is removed. No man willingly chooses to be gloomy and sad himself, or to be the occasion of gloom to others. Why is it that the Gospel of Christ has made so little progress in the world? Why were the apostles, with their limited means, so much more successful than their successors with steam-presses? Do you not believe there is a defect somewhere in presenting it? I submit, is it not in this gloomy feature of it? Why should not a Christian be the happiest man in the world, and wear the happiest countenance, and talk joyously about the blessed abodes beyond the skies? Can we expect that religion will be generally embraced until Christians are so?

Why should religion and religious subjects be so gloomy a matter? What is there in them to call for it? Are they any thing more than discourses about a

final and a happy home, and the way there? Ought we not to look upon those distant abodes as a child looks upon his distant home, when far away; and thinks of it, dreams of it, talks of it to his companions, and finds the theme ever bursting from his lips before his superiors? Compare him, as with eye brightning and countenance beaming, he discloses his young anticipations of delight, when emancipated and suffered to fly to that home of bliss, with another child, his brother, perhaps, who is alike exiled from home, but who is studiously silent on the subject, when excited at all with enjoyment, and only brings it forward at set times, when he must do it; and then it is done with a countenance and a tone of voice betokening any thing but its enjoyment. Which of those children would soonest interest you in that home of his? Which of them would soonest tempt you to partake with him of its hospitalities and joys? and which of them would give you the most lively evidence that he so loved that home that nothing would tempt him to forfeit his title there?"

Such are the views of this author: and we might add, that while we would not be willing to become responsible for all the interpretations that might be put upon them, yet we are willing to vouch for the general sentiment.

Having thus pointed out some of the characteristics of pure religion in the first part of this article, and called attention to some of the obstacles that impede its progress, it were sufficient perhaps to add, that it does not consist in creeds, formulas, confessions, doctrines and dogmas, however excellent they may be, but in that love to God, and purity of heart which an unclouded belief and a living faith alone can inspire.

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Its results are the peaceable fruits of righteousness, and its life is the life of the soul. "Pure religion and undefiled before God and the Father is this, to visit the fatherless and the widow in their affliction, and to keep himself unspotted from the world." It is not all faith, nor yet is it all works, but a happy and consistent blending of the two. It may not be amiss, therefore, to allude briefly to the manner in which it may be inculcated.

It has been shown that true religion can dourish to its fullest extent only when the affectional nature of man is fully developed ;---that universal benevolence, and the love of home, country, and kindrod which characterize the individual while subject to these influences, may, under proper training, be made to converge all these energies in the one great object of affection-the God of the universe-thus bearing the whole tide of man's affectional nature to the great central point, where culminates every virtue, and around which clusters every grace that adorns the Christian character. Under these influences man's esteem ripens into veneration for the character and goodness of the Creator; his reverence into adoration; and his friendship into love; while purity of motive, meekness, submission under the provocations of life, and faith and confidence in God may characterize and possess the whole soul of man.

The manuer in which this may be encouraged may be briefly summed up or indicated thus: The child loves its parents; but by conversation, teaching and pure example, its little mind may soon be brought to realize the fact that God is its father and the direct source of every comfort that administers to its wants, and every delight that swells its heart; and all this,

too, without at all diminishing the strength of the parental bond. It loves its brothers, sisters, kindred and friends; and all these, including its parents, are the legitimate objects upon which the affections are first drawn out; but by a mere gratification of a spirit in man-a desire for an object of worship higher than mortal-these desires take on a higher development, and attach themselves to the elder brother, even Jesus, and to kindred in the skies. It may love the brotherhood of the race; yet this is not weakened but strengthened by a love that purifies and exalts all others-the love for the Redeemer and the redeemed. It may love its home and country; but these are only types of that better land where there shall be a full development and fruition of every noble sentiment that now swells in the human heart.

Now we have shown in another place that these things are teachable, and that just so far as they are, they are placed in the hands of parents and teachers: and we here add, that that system of education that does not recognize them as cardinal principles, will never meet the wants of the human race as it is now constituted. And since it is unsafe to defer the teaching of these things until their opposites become established in the heart; we must therefore look to the family, the Sabbath School and the Common School, to take charge of these matters. And since the whole subject is thus teachable, and thus committed for the most part to these institutions, it is their duty, at once, to set about classifying and arranging these subjects, so that they may be taught and inculcated in the hearts of children at an early age. Let lessons be given regularly, and in due proportion, on those subjects; and what is still better, let them be mingled

with all our teaching of whatever character; so that every lesson may make the child better just in the same ratio that it makes him wiser; and let every word of instruction point upward to man's higher and holier destiny, for which alone this life is a preparation.

# Article 2-Conscience.

The next topic for consideration is Conscience. And however diversified and conflicting the opinions are in reference to this department of man's moral nature. it is universally conceded by all, that man, in his normal condition, has a conscience, and that it is subject more or less to the influences of education. It is a significant fact also, that while conscience is the peculiar guardian of the sanctity of the soul, it is itself subject to some of the most violent abuses, from a want of education, or rather from a wrong education. It will therefore be seen, that whatever may be its ultimate ingredients or nature, as a basis, it is, nevertheless, subject to great modifications in its manifestations, and only acts in proportion to the light received, and is always true to its own nature and capacity. Taking all things in reference to it, into consideration, we are warranted in the assumption, that it rises no higher in its decisions than the ideas upon which it is predicated. It becomes an infallible guide to right and wrong, no further than the light shed upon its path, shines from the orb of truth. Therefore, the more accurate this light, and the more exalted these ideas are, the more exact and exalted will be these decisions. God being the highest possible object, therefore, in him all ideas of perfection center; and from him all light shines; and these become, by virtue of this exaltation, the true basis of conscience. Hence again :

the more exalted and correct our views of the Divine Being, the more elevated our conscience and conduct.

SECTION 1-MORAL SENSE.—The ideas of right and wrong themselves, seem to originate from this source; and it is not claiming too much for them, when we say they derive their peculiar force from these ideas of God: though I know, they seem to exist from the earliest dawn of intelligence. They would appear, therefore, in reference to some of the more direct operations of reason, to be almost intuitive : but our feeble powers fail, doubtless, to take cognizance of all the subtle influences that, we have reason to believe, operate to produce these strange results; so that we shall be safe in concluding that all these manifestations are referable, either directly or indirectly, to the causes named above. And we might add, with equal plausibility, that from the same source also, proceed our love for the truth, fidelity, integrity and every thing, in fact, that relates to the moral sense. And that these can be cultivated, we shall now proceed to show. For if they can not be taught, then must truth be left to wage unequal warfare with falsehood, and to struggle against the combined influences of false teaching and false doctrine.

Our ideas of God being the true basis of conscience, it might be necessary to inquire how these ideas can be brought to as perfect a state as possible. A knowledge of the true God is therefore necessary. It will not do to believe in *any* god, nor yet to believe *any* doctrine concerning the true God; for our moral acts partake more or less of our belief, and are affected, to a greater or less extent, by it. A corrupt doctrine is sure to beget a corrupt life. Wrong theory leads to wrong practice. Believing a thing will never make that thing true; and universally, the greater the error in belief, the greater the crime of believing it; and hence the more disastrous the consequences following such a belief.

Now, that our belief, so far at least as doctrine is concerned, is almost without exception, the product of education, is proved by the fact that children, who have received any parental instruction at all, adopt the belief of their parents; and though they may change that belief in subsequent life, yet relics of it will remain; frequently too to the torment of the believer. A belief in ghost stories and hobgoblins, early contracted, is an example of this. Again: the child often receives wrong impressions of God, both from bad precept and bad example. Our parents and teachers teach such low, human ideas of God, that he comes to be regarded by the child, scarcely above a human being, and hence the attachment rises no higher than the human standard. It is comparatively weak. Some err perhaps as much in an opposite direction, by teaching that God is so much a God that he never meddles with human affairs, but regards man and all his actions with a stoical indifference. Hence there can be no ready attachment; for an object to be loved must not be a myth, but a reality, and must possess lovely attributes. One teaches that God is all mercy and forgiveness, without considering his attributes of wisdom and justice; another that he is all inflexible sternness and vengeance, according, usually, to the predominance of the sentiment of love or fear in the mind of the teacher. This results, on the one hand, in an undue indulgence and a careless indifference, as to obedience; and on the other hand, in a

harrowing dread of the vengeance of God, which, unaccompanied by love or mercy, must produce a secret aversion in the mind of the child, and a desire to be free from such slavish restraint.

Now the truth is doubtless found in neither of these extremes, but in the happy blending of both into that harmonious character which is both the wonder and admiration of angels and men. The child should be taught to fear as well as to love; but it should not be a slavish fear. He should fear to offend as a ground of willing obedience; he should love to obey as the best possible means to promote a healthy fear: and both these sentiments, in their interchangeable relations, should, as far as possible, be induced without extraneous force. The child should be taught to love the right, for right's sake, and not for pecuniary reward; and to abhor the wrong for its own inherent wrongness. He should be taught to love the truth for truth's sake, and to hate a lie for its native deformity. He should be taught to be honest, not because it is the best policy, but because honesty and uprightness are excellencies far above reward; notwithstanding they carry with them their own reward.

But in all this teaching, it will not be necessary to attempt to conceal the rewards by any artifice, much less should they be held up as motives to induce action, but only as the inevitable result. The child therefore should be taught to do right, to love the truth, to be honest and to worship God from principle, and not alone from impulse, let the consequences anticipated be what they may. Such teaching can be done in every family and every school, by simply taking advantage of the common occurrences and every-day circumstances connected with other duties.

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SECTION 2—MORAL DUTIES.—It will not be necessary - to enter into a discussion upon this topic, since the nature and bearing of *moral duties* have already been alluded to; and, were it not that their connection with the conscience should be pointed out, they would not be referred to again.

1. Those relating to the family and social compact are prominent, and constitute the basis of all the rest. If these are observed, if the child is taught not to violate his own conscience in reference to the social ties, he will be more likely to regard it as sacred, when he comes to operate in a wider sphere.

2. The next class of duties of a purely moral nature, are those that relate to country, laws and institutions. This arrangement is in keeping with the natural order of the development of the affections; and it will be found that these affections, under a right system of education, will exactly keep pace in development, with the demands made upon them.

3. The next relate to mankind in general, and will be found to be no more nor less than a generalization, and a little different application, of those existing in the family and the school.

Now any violations in the antecedent relations of any of these duties, will only pave the way for a more extensive depredation in subsequent relations. For instance, if it is esteemed a light thing to infringe the rights of conscience in the family and in the school, such infringement will be comparatively easy when applied to society and country; and if with these, then with nations and with the world; and hence wars and national difficulties.

Now we submit this question for candid consideration, viz.: Suppose that all these antecedent relations were guarded carefully, and every infringement anticipated and apprehended; and suppose honesty and uprightness in their largest and most critical sense were taught and enforced as carefully and as rigidly as the rules in grammar and arithmetic are, would not the wars and contentions among nations, as well as the petty differences that arise among neighborhoods and individuals, cease, or at least be very much circumscribed? Would it not hasten the long-looked-for Millenium, as much as all the theorizing of theologians upon this subject?

Again: the little deceptions and hypocrisies which so often escape the eyes of the teacher or parent, and which are sometimes practiced by teachers and parents themselves, are the very beginnings of depravity of a monstrous growth, that develops itself in later years in the form of thefts, fraud, murders and similar crimes. How much better "to nip these things in the bud" than to allow them to attain their full growth. But with this brief allusion, we leave this part of the subject to notice, lastly, under this division:

SECTION 3— RELIGIOUS DUTIES.— These have also been discussed to some extent, and will therefore claim but a brief notice here.

Unless Religion becomes a matter of conscience, and not merely of convenience and commerce, its genuineness and existence are of doubtful standing, to say the least. The duties she imposes have a higher claim upon our attention, than a mere matter of policy. The discharge or neglect of them will affect the conscience either for good or for evil.

These duties may be enumerated under the following heads, viz. :

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1. Those that relate to public and private worship, including secret devotion, reflection and self-examination. And here it may not be amiss to remark, that there should be a portion of each day set apart to these duties, thus rendering them periodical; for any exercise to be profitable must be thus. But he who attends to none but periodic duties, will seldom grow in the Christian life; while he who does not attend to such, will soon lose all life. Hence there is necessity for both.

2. There is another class which relates more particularly to the religious obligations we owe to our neighbor. "Thou shalt love thy neighbor as thyself," is no less a command than "Thou shalt not kill;" and so far from its being a mere moral obligation, it is easy to understand that a man may be strictly moral, in the light of the human law, and yet be entirely indifferent as to the claims of this command. Again, we are commanded "to love our enemies, to bless them that curse us, to do good to them that hate us, and to pray for them that dispitefully use us, and persecute us:" all of which demands are more than the merely moral man can do, for it clearly presupposes a heart deeply imbued with the principles of piety.

3. There is still another class of religious duties, which seem to be somewhat distinct from those described above, viz., those that relate to the poor and unfortunate. The nature of this obligation is briefly summed up in the 27th verse of the first chapter of James, quoted in another place.

Now, whatever may be the tone of public sentiment upon these subjects, it is nevertheless certain that they embrace the great mass of the principles and duties of Christianity, and that their inculcation and practice will, to a great extent, depend upon the vigilance and fidelity with which they are taught in our schools and in our families. They must not be left to chance or the uncertain influences of the world. That policy would not be regarded as sound, which would leave the intellectual training to so uncertain influences. Well, the moral nature of man is not less subject to control. "He that soweth to the flesh, shall of the flesh reap corruption : but he that soweth to the spirit, shall, of the spirit, reap life everlasting."

# Article 3-The Will.

The nature and offices of the Will, as a motive power, are so intricate and diversified, that its strict analysis will not be attempted here. Its general characteristics are so-well known, as to render such an analysis useless. Nevertheless, its relations, to the thinking principle, and its influence as a moral force upon the actions of men, are such as to render its cultivation, at once, an object of great solicitude.

Perhaps as clear an idea of the office of the will can be gathered from the following extract,\* as from any other source. "It is the monarch of the mind, ruling with despotic, and at times with tyrannical powers. It is the rudder of the mind, giving direction to its movements. It is the engineer giving course and point, speed and force, to the mental machinery. It acts like a tonic among the soul's languid powers. It is the band that ties into a strong bundle the separate faculties of the soul. It is the man's momentum: in a word, it is that power by which the energy or energies of the soul are concentrated on a given point, or

<sup>• &</sup>quot;The Will as an Educational Power," by Rev. J. B. Bittenger.

in a particular direction: it fuses the faculties into one mass, so that instead of scattering all over like grape and canister, they spend their united force on one point."

But it will be sufficient for our purpose to consider its several functions under the following heads: 1. Motives and purposes. 2. Intentions and choice. 3. Executive volitions. We shall content ourselves with pointing out some of its prominent characteristics, in connection with some modes of culture.

It will readily be seen that the operations of the will are intimately allied to, and somewhat dependent upon the action of other mental powers; that while it is itself the motive power, it awaits, in its executions, the light of the understanding and judgment, itself moving these powers to action, at the same time that it is dependent upon them for the light that guides it. It is, in one word, that power which the whole mind, as a unit, has to direct its own energies, bringing all the powers under its control, and making the body, as well, its special servant. Viewed in this light, the mind itself, according to the author just quoted, assumes the following threefold functional classification. "The intellect is the legislative department, the sensibilities are the judicial, and the will the executive." But it will be necessary to understand this with some latitude; for it may not be easy to see how the sensibilities, for instance, aid the understanding and judgment, the two faculties most concerned in forming conclusions. Viewed in its automatic relations, how. ever, the will is the blind Samson of the mind, which must needs have other eyes to guide it; or else like him, it knows not where to exert its strength. It is like him in another essential respect. When it tamely

and basely surrenders its power to appetite or passion, it is soon shorn, like Samson in Delila's lap, of its locks of strength, and then like him again, it becomes itself the slave, bound hand and foot, powerless to remonstrate successfully, against the imperious demands of the passions.

How important, therefore, that the will be educated, and that the perception, understanding, judgment, imagination and memory, the natural eyes of this faculty of the mind, be trained with reference to their psychological relations to the Will!

SECTION 1—MOTIVES AND PURPOSES.—No intelligent act, however trifling, is ever performed without a motive or a purpose. These do not constitute the energizing principles of the will, nor yet are they the food: they only serve as the occasion for action. And the more exalted and intelligent these motives and purposes are, the more definite and determined become the operations of the will. Hence, *instruction in matters of right and wrong*, at least, becomes a necessity in order to secure an intelligent and harmonious action. This need not be different, at least in manner, from ordinary instruction. It would comport perhaps with "moral suasion," and thus afford the necessary light to the executive functions.

There must also exist a desire to promote the right and the general welfare. This will be induced in right instruction, and will thus become not a mere blind impulsive distemper of the mind, but a noble sentiment characterized by intelligence and wisdom. But in order best to promote right motives and right purposes, especially in the youthful mind, it is necessary to induce a *trust* or *faith* in the *rectitude* of a Higher Power. Here seems to be the very point, most accessible to the teacher, and upon which he should seize, in order that he may become master of the will. Children are themselves dependent. Parents or instructors are usually the objects in which such dependence centers. The main object, therefore, is to so mold and fashion these motives, etc., as that they shall superinduce the proper volitions. This will apply to the intellectual culture as well as to the moral. But the modes of culture, as far as they relate to the motive power of the will, in directing the application of the intellectual faculties, will be noticed in the Art of Teaching, under the topic of "Modes of Study."

SECTION 2-INTENTIONS AND CHOICE .-- No sooner are motives judiciously placed before the mind, and the proper desires and confidence inspired, than it at once sets about forming intentions which, under the influence of the reasoning and judging powers, soon ripen into determinations and well-defined choice, one of the primary functions of the will. These may exist at first in the shape of half-formed purposes of action, and may be weak or strong, according as the cast of mind varies and as the motives have been feeble or powerful. In a mind uncultivated and unused to grapple with the difficulties of contending interests and forces, the great danger will be that the will will be tempted to yield those determinations or resolutions without making the necessary effort to maintain them. Hence, such a will needs encouragement and strengthening by every laudable inducement that can be placed before it. Nothing is more disastrous to the will than the habit of forming, or rather half forming resolutions and then breaking them. It soon refuses to give heed to the calls of those premature and irresolute determinations, and grows weaker and weaker at every successive attempt and failure, until finally it ceases to act at all; and the intentions fall to the ground as fast as they are formed. The moral effects of this practice are ruinous. See to it then, that no resolutions are formed, whose fulfillment will be doubtful, and that those which are formed are carried out at almost any sacrifice.

It often becomes necessary however to interpose authority: and here the will should be taught to bend to a higher power. Stubbornness and willfulness are as much to be deprecated as feebleness and vascillation. Obedience to law should be a cardinal point in all instruction, since a willing submission to properly constituted authority, is as essentially a noble act of will, as resistance to tyranny and oppression.

Another mode of cultivating the will, as a moral force, should not be overlooked, viz., the submission to suffering and privation. Nothing, perhaps, has a happier effect upon the human heart than the lessons affliction and suffering teach, provided we show proper submission. To rebel against these has the opposite effect. It creates a petulance that very much aggravates our difficulties. To bear the ills of life patiently, is one of the noblest virtues; and one, too, that requires as vigorous an exercise of will, as to resist the encroachments of wrong. The virtue of endurance is nearly allied to that of perseverance. Children should be taught to bear the yoke in their youth.

SECTION 3—EXECUTIVE VOLITIONS.—We come now to consider the will in that sphere of action where it exhibits some of its strongest characteristics, viz.,

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its volitions. These constitute its executive force, and are the great motors in all the operations of mind and body. To regulate these forces would seem to be one of the first objects of education. Some possess this power in a very feeble state, while others are gifted with more than would appear to be necessary for ordinary purposes. Hence, there is a necessity for both restraints and stimulants. These of course should be administered judiciously. It will not answer for us to interpose our restraints or stimulants too freely, where the voluntary volitions act in reference to opinions and belief. While it might, in general, be denominated *direction* and *control* by *superior* force, it would imply of course, nothing more than the regulating influence which a wise teacher would throw around his pupil.

But one of the most powerful educators of executive volitions, is the actual encounter with difficulties and temptations. The will, or executive volitions of the child, can no more be cultivated while the teacher or parent studiously avoids bringing him into actual contact with trials, than can his mathematical powers be developed without calculation. The child will no more become a strong, determined man, under these circumstances, than he would become a good soldier while he was always kept out of danger. But to cultivate this power, he must enter the field and engage in the actual conflict with difficulties. He must grapple, single-handed, with trials and hardship. He must meet temptation face to face, and conquer his own desires to sin, if he would realize all the glory of a conquest.

This brings us to notice energy and perseverance in duty, the last topic which we shall attempt here, and the crowning excellence of a well regulated mind. The necessities for these virtues are sufficiently obvious, as their opposites, irresolution and indolence, are notorious. To cultivate these virtues requires care and patience. It should be commenced early in life, and continued gradually until the habit is established. Nothing should be demanded which can not be performed; and nothing that is attempted, should be abandoned unperformed. It may require encouragement and even absolute authority, as incentives; but the energies should never know they could yield except to impossibilities. That which seems difficult will thus often prove easy; and the list of impossibilities will be reduced to a mere "shadow," provided the energies of a living soul are aroused and arrayed against them by an indomitable will.

For further and particular modes of culture of this department of man's nature, the reader is referred to modes of study, recitation and government, as described in the Art of Teaching.

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