

VOL. 2.

JANUARY, 1898.

No. 1.

EDITED BY
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BATTLE CREEK, MICH., U. S. A.

YEARLY SUBSCRIPTION,
FORTY CENTS.

The Christian Educator

IS DEVOTED TO

The Thorough, Systematic, and Symmetrical Culture of
the Hand, Head, and Heart, in the Home,
School, and Church.

ISSUED MONTHLY.

Entered at the Post-office in Battle Creek, Michigan.

FAITH is not an opiate, but a stimulant.

LABOR is to human beings what they make it.

DEAL honestly and faithfully with your children.

LAY off care and perplexities with the labors of
the day.

WHEN God lays a work on individuals, men are not
to reject his sanctions.

WE were created for a higher and nobler existence
than the life that now is.

IN obtaining an education, success is not to be
regarded as a matter of chance or destiny.

NATURE testifies of an intelligence, a presence, an
active energy, that works in and through all her laws.

THE hand that hung the worlds in space is the
hand that wrought with delicate skill the lilies of the
field.

OUR bodies are built up from what we eat and
drink; and as in the natural economy, so in the spiri-
tual economy, it is what we meditate on that gives
tone and strength to our spiritual nature.

MANUAL TRAINING IN EDUCATION.

ALL the powers of the mind should be called into
use, and developed, in order for men and women to
have well-balanced minds. The world is full of one-
sided men and women, because one set of faculties is
cultivated, while others are dwarfed from inaction.
The education of most youth is a failure. They
overstudy, while they neglect that which pertains to
practical life. Men and women become parents with-
out considering their responsibilities, and their off-
spring sink lower in the scale of human deficiency
than they themselves. Thus we are fast degenerat-
ing. The constant application to study, as most
schools are now conducted, is unfitting youth for
practical life. The human mind will have action.
If it is not active in the right direction, it will be
active in the wrong. And in order to preserve the
balance of the mind, labor and study should be
united in our schools.

In past generations, provision should have been
made for education on a larger scale. In connection
with the schools should have been agricultural and

manufacturing establishments. There should have been teachers of household labor also. A portion of the time each day should have been devoted to labor, that the physical and mental might be equally exercised. If, in the past, schools had been established upon this plan, there would not now be so many unbalanced minds.

I have been led to inquire, Must all that is valuable in our youth be sacrificed in order that they may obtain an education at the schools? If there had been agricultural and manufacturing establishments in connection with our schools, and competent teachers had been employed to educate the youth in the different branches of study and labor, devoting a portion of each day to mental improvement, and a portion of the day to physical labor, there would now be a more elevated class of youth to come upon the stage of action, and have an influence in molding society. Many of the youth who would graduate at such institutions would come forth with stability of character. They would have perseverance, fortitude, and courage to surmount obstacles, and principles that would not be swerved by wrong influences, however popular. There should have been experienced teachers to give young ladies lessons in cooking. Young girls should have been instructed to manufacture wearing apparel, cut, make, and mend garments, and thus become educated for the practical duties of life.

For young men there should be establishments where they could learn various trades, which would bring into exercise their muscles as well as their mental powers. If the youth can have but a one-sided education, and it is asked, Which is of the greater consequence, the study of the sciences, with all the disadvantages to health and life, or the knowledge of labor for practical life? we unhesitatingly say, The latter. If one must be neglected, let it be the study of books. There are very many girls who have married and have families, who have but little practical knowledge of the duties devolving upon a wife and mother. They can not cook, but they can read, and play upon an instrument of music. They can not make good bread, which is very essential to the health of the family. They can not cut and make garments, for they did not learn how to do these things. They did not consider them essential, and in their married life they are as dependent as are their own little children, upon some one to do these things for them. It is this inexcusable ignorance in regard to the most needful duties of life which makes very many unhappy families. . . .

Intellectual, physical, and moral culture should be combined in order to have well-developed and well-balanced men and women. Some are qualified to exercise greater intellectual strength than others, while others are inclined to love and enjoy physical labor. Both of these should seek to improve where they are deficient, that they may present to God their entire being, a living sacrifice, holy and acceptable to him, which is their reasonable service. The habits and customs of fashionable society should not shape their course of action. . . .

The minds of thinking men labor too hard. Men frequently use their mental powers prodigally; while there is another class whose highest aim in life is physical labor. The latter class do not exercise the mind. Their muscles are exercised, while their brain is robbed of intellectual strength; and the brain-workers neglect to exercise the muscles, and rob their bodies of strength and vigor. Those who are content to devote their lives to physical labor, and leave others to do the thinking for them, while they simply carry out what other brains have planned, will have strength of muscle, but feeble intellects. Their influence for good is small in comparison with what it might be if they would use their brains as well as their muscles. This class fall more readily if attacked with disease, because the system is not vitalized by the electrical force of the brain to resist disease. Men who have good physical powers should educate themselves to think as well as to act. . . .

(This is what might have been done by a proper system of education. . . . But we can do much, even in these last days, to correct the existing evils in the education of youth. And because time is short, we should be in earnest, and work zealously to give the young that education which is consistent with our faith. We are reformers. We desire that our children should study to the best advantage. In order to do this, employment should be given them which would call the muscles into exercise. Daily, systematic labor should constitute a part of the education of youth even at this late period. Much can be gained even now by connecting labor with schools. The students will acquire, in following this plan, elasticity of spirit and vigor of thought, and can accomplish more mental labor in a given time than they could by study alone. And they can leave their schools with physical constitutions unimpaired, with strength and courage to persevere in any position in which the providence of God may place them.—Mrs. E. G. White, in "Christian Education."



General Articles



THE EDUCATIONAL VALUE OF MANUAL TRAINING AND ITS MORAL INFLUENCE.¹

◁ It may be safely said that the educational value of manual training, its moral influence, is not emphasized, is but little known. It is always the practical side that is considered, the utilitarian principle that finds advocates and followers, the dollars and cents that are worshiped. I wish, therefore, at the outset to dispel the idea, commonly held, that manual training is solely a mechanical process, merely a muscular exercise. Manual training is not merely a training of the hand; it is intended more especially for the intellectual and moral development. >

In order entirely to fulfil its mission, manual training must teach its pupils that they must create; that the only work of any value for educational purposes is something over which they have made some intellectual effort in the conception, delineation, construction, of an original idea. And in doing this, a pupil must receive complete hand-skill, the powers of the eye, the hand, and the mind all being called into operation. Teaching a trade does not accomplish this; it is the fundamentals which lie at the basis of all trades and occupations that should be taught. If a knowledge is given of these, afterward the technicalities of the different trades will not prove difficult, as the most important part, the groundwork, has already been attained.

◁ The necessity for some such training is obvious. Every day it is taking deeper root; schools are springing up all over the country, though as yet most of the systems are very crude and only partially developed. The chief fault which teachers have to guard against is the mistake of making the product, the visible product, the main thing, instead of only a means to an end. The aim should not be some special material product, but the benefiting of the whole individual by awakening his perceptive, receptive, and conceptive faculties, and by giving him hand-dexterity; that is to say, the power to execute in any material the ideas he conceives in his brain. The hand is very closely allied to the brain, working better for a trained mind, and the mind working better for a skilled hand to carry out its require-

ments. Nor is this all, the training of the visual faculties is necessary to complete development. If one is taught to depend entirely on artificial aids, the faculties of the individual still remain uncultivated.

One might go on twenty years using tools mechanically, and remain an unskilled artisan, as many do. All this, however, must not mean that kind of education that is intended to foster industrial skill and to fit the pupil, while at school, for the industrial pursuits of later life. We make strenuous opposition to industrial education in this sense. The state violates the rights of children when it undertakes to prescribe their future career during the school age; and we hold that the public system of education should be kept free from any subserviency to "the bread-and-butter interests" of later life. There is a totally different sense in which the phrase "industrial skill" or "industrial education" may be understood; not that education shall be made subservient to industrial success, but that the acquisition of industrial skill shall be a means for promoting the general education of the pupil; that the education of the hand shall be a means of more completely and more efficaciously educating the brain. It is in this sense, in which labor is regarded as a means of mental development, that industrial education is understood by the most enlightened of its advocates.

Casting aside all these preliminary arguments and views on the subject, let me endeavor to point out the application of the "creative method," as it has been appropriately named, in the school; first, to the training of the intellect; second, to the development and refinement of the taste; and third, to the formation of the character.

◁ Manual training in its ideal meaning is merely a method. It is the method of self-thinking and self-activity. In a true manual-training school, a school in which manual training is a main factor, in whose center stands the department of manual training like a laboratory in which everything pertaining to the child's education is tested and verified,—in such a school the pupils have to do everything themselves; the teachers must not and can not do it for them. They have to think for themselves, to come to their own conclusions, and to execute, to act, for themselves. The child is thus taught by experience, *making* his own experience, and has to bring into action every faculty when at work. The work on which the pupil is engaged in the school workshop will make his conception of the fundamental geometrical relations unusually clear and distinct. The

¹ A lecture recently delivered in Chicago.

properties of a square, trapezoid, circle, ellipse, etc., will be more vividly realized by those who embody these forms than by those who only observe them. Every one knows that the language of form—referring here to mechanical drawing, to the mechanical sketch in the workshop—is essential to the harmonious development of the mind; and nobody will deny that the power of concretely expressing forms will give us a firmer mental hold upon the forms themselves. I want to add that the work of the pupils will aid them to a clearer understanding of the elementary facts of mechanics; they will not only gain a more realizing knowledge of mechanics,—tools and their functions,—but will also be led up to a better comprehension of the general laws and principles that underlie the action of machineries. The pupils who will, as far as possible, construct their own scientific apparatus, will undoubtedly be greatly benefited in the study of physics.

What I have thus far said refers only to the value of manual training for the culture of the intellect. But we desire an "all-sided" rather than a one-sided development of the child, and must therefore take into account the esthetic and moral nature as well. Only by the harmonious culture of all three can the larger humanity be perfected; and the creative method must show itself capable of giving a powerful stimulus in all these different directions, if it would vindicate its title to the high significance which we ascribe to it.

Now, it is easy to see that the production of beautiful forms by the pupil will tend to heighten his appreciation of what is beautiful, and to refine his taste. I speak here of the art departments—free-hand drawing, designing, painting, and modeling.

While mechanical drawing is made the basis of instruction in the workshop, and the work executed is the means of creating mathematical precision, in the schoolroom free-hand drawing is the basis, and the work done here is the means of cultivating a sense of harmony and beauty. Little children of six years easily learn to model leaves of various shapes, architectural ornaments, etc.; and it is wonderful to see with what delight they enter upon their work, how like a flood the instinct of creation, which is usually repressed and pent up in children, rushes forth as soon as an opportunity is given it to vent itself. I can testify that children of the poorest class have displayed a liking and an aptitude for artistic production that in the judgment of artists who saw their work seemed truly remarkable. Let us consider what

a promise is contained in this beginning; and what a benefit it would be if all pupils, in all schools, could receive a similar education. How would art flourish anew if the slumbering art-instincts of the masses of the people were awakened, and a public sentiment were formed favorable to, and appreciative of, the highest efforts of true art! For it is idle to expect that great artists will be found in this country, or in any country, by having schools and advantages for the few only.

The solitary artist must perish or deteriorate for lack of the congenial atmosphere in which alone he can live. The great artist is the rich, ripe fruit of a whole people's art life, the high-crested wave that rises out of a whole sea of similar tendency and endowment. And not only would the public encouragement and understanding of the best art be fostered in school ateliers, but the faculty of adequately executing the ideas of a sculptor or an architect would thus be trained. The complaint is made that we have not in this country workmen, who, like those of France, can enter sympathetically into the conception of an artist, feeling what he desires to express, and, in their subordinate capacity, contributing to the fine realization of his intentions. Can it excite surprise that this should be so, when we compare the pains which are taken with the art education of the people generally in France, and the all-but neglect into which this branch of education is suffered to fall among ourselves? Manual training has here, too, a mission of reform to fulfil; and a fairer future will dawn for art in America when its principles shall be generally understood and recognized.

Lastly, in this connection I shall have to dwell upon the influence of the creative method on the formation of character. The influence of the new method in education will be nothing short of revolutionary in this respect, inasmuch as it will help to overthrow many of the impure conceptions of morality that prevail at the present day. The mass of mankind have not yet learned the immanent quality of virtue, and therefore seek in extraneous motives the sanctions of moral conduct. The very question they ask—what is the good of performing a virtuous act?—shows how unsound and how immoral their conceptions of virtue are. And the answer commonly given—for the sake of some reward or punishment, either here or hereafter—tends to confirm the same conclusion. What men need to learn is the intrinsic value of virtue; what they need to revere is the authority and majesty of laws inherent in the soul.

And now I would point out how the occupations of the workshop and the atelier combined tend to establish in the mind of the pupil an unselfish and impersonal standard of valuation, which will prepare him admirably for the truer moral estimate of life. For days and perhaps for weeks he labors to convert a formless material into a form illustrating mathematical truth or esthetic harmony. He undergoes protracted toil, and meets, perhaps, with many failures and disappointments in order to be rewarded at last — by what? — Simply by realizing in some degree that perfectness of the object which he aimed at from the beginning. His work is devoid of any pecuniary value. It is a mere typical form. Its worth consists in being true or in being beautiful. And a habit is thus formed of judging things in general according to their intrinsic rather than their superficial qualities. Gradually, and almost insensibly, the analogy of the work performed on outward objects will be applied to inward experience. A delicate sensibility to true and harmonious relations will be engendered, and the impressions thus obtained can later on be raised into convictions by direct moral instruction.

The pupil, when of sufficient age, can be taught that in the world of thought, and feeling too, truth and harmony of relation are the sole ends to be sought. He can be exhorted to undergo similar toil, to be prepared for similar failures and disappointments, in order to realize at the last something of the same inward perfection which is to be his only and all-sufficient reward. Thus while he is shaping the typical objects which the instructor proposes to him as a task, while he pores silently, persistently, and lovingly over these objects, reaching success by dint of gradual approximation, he is, at the same time, shaping his own character, and a tendency of mind is being created from which may eventually result the loftiest and purest morality.

G. BAMBERGER,

Supt. Chicago Jewish Training-School.

(Concluded next month.)

LANGUAGE TEACHING.

THE use of what is taught to a child ought to have a bearing upon the manner in which it is taught. The use of language is to express thought, and accordingly the thought which the language expresses should hold the first place in the teaching of language. In the expression of thought, either spoken or written lan-

guage is used. Hearing, reading, speaking, and writing are the formal modes of studying language.

By formal modes I mean that the expression of thought involves those *forms*, which, if the thought be correctly expressed, must be *studied*. But the study of these forms merely as forms, stultifies the young child's mind, and diverts it from the thought to be expressed, thus hindering rather than helping in the acquisition of the power to *use* language. A person may know all the rules of grammar, be able to read with beautiful accent and inflection, write a symmetrical hand, and spell correctly, and yet at the same time be almost powerless in the expression of the thought which these forms should be the means of conveying.

The problem which should submit itself to one who teaches language is, How can I assist the pupil in obtaining the power to *use* language and to form correct habits of speech? There can be only one answer, namely, To obtain correct habits of speech through a study of the intrinsic thought of the language.

Thought is what makes language necessary. The little child's need of language and of the forms of speech is limited, because his thoughts are few and not closely connected. Uncivilized peoples do not need a large vocabulary; for their experiences are confined to such narrow limits that they have but few thoughts which differ one from another. Introduce the Bible to these same uncivilized people, and see how rapidly their vocabulary increases! A whole universe of thought is opened to them, and words and phrases have to be invented to express the entirely new thoughts and shades of meaning which they thus receive.

When the child enters school at eight or nine years of age, he has a considerable range of thought, which is more or less definite, and a considerable vocabulary with which to express his thought. In obtaining this power of language, he has surmounted difficulties which appear almost insuperable to us who are older when we attempt to learn a new language. In the first place, the child learns to hear language. This is the result of a series of acts of attention. Long before he can talk, he will listen attentively to conversation or reading. The power of speech is acquired by practise in uttering thought. To hear and speak, he must become familiar with the pronunciation of words.

“The pronunciation of a word consists, first, of the enunciation of each sound element; second, the articulation or uniting of the sounds enunciated (in ar-

tication there is an imperceptible pause between two successively uttered sounds, and a perceptible pause between syllables); third, in words of more than one syllable, there must be inflection of voice and accent upon one of the syllables; and, fourth, a slight inflection, less than accent, which is called rhythm, in the utterance of every syllable. In the analysis of pronunciation we have, then, enunciation, articulation, pauses, perceptible and imperceptible, accent, and rhythm."

What a wonderful thing the speaking of a word is when we submit it to analysis, and write it out! And the wonder of the difficulties of language increases when we come to analyze the work of the vocal organs in producing the word or the formation of words into sentences. But the child has quite mastered these difficulties of language by the time he has reached the school age, and all by the force of his thoughts which *must* find expression. The law of interest is the rule by which he has worked out these marvelous results. He is interested, not in the words themselves, nor in the manner in which they are produced or arranged into sentences, but in the effect of the words when combined in the production of thought. He wants to know what other people know, and have them know what he knows.

Now, the child has acquired his forms of language, correct and incorrect, almost wholly by imitation. This statement needs no argument. Every child—from one in the slums of our large cities to one who is surrounded by the comfort and refinement of a good home—is a proof; for invariably he uses or comes to use the forms of language employed by those with whom he is associated. But in this use of language it must be noted and remembered that there is no meaningless reproduction of words for their own sake, but rather for practical use in the understanding and expression of thought.

Until he comes to the age when he should be assisted in acquiring a greater use of language, the child has employed a natural method of learning. Now, ought not the same method in general to be continued in school? His parents have taught him words just as they were needed for immediate use. The language thus acquired was adapted to the expression of his thoughts. What a direful result would have followed an attempt to teach him to use language by beginning with the elementary sounds, then the uniting of these sounds into syllables, then the accent and rhythm, and so on—to the utter destruction of all the child's powers of language, and the peace of the

home in general! And yet that is just about what we do when we teach the child reading by beginning with the elementary sounds of words, then go to the words themselves, and lastly to the sentences. To the little child learning to talk, a word is a complete thought; and when he comes to reading, the words should be given to him in the form of complete thoughts. So in teaching the correct use of language, if we follow the natural method, we shall not set the child to tearing apart and putting together sentences merely for the purpose of teaching him meaningless technical terms; but we shall let all his construction of sentences be the result of the needs in expressing his own thought, or interpreting the thoughts of others.

The object of all language teaching should be, then, to give the child a greater power to use language. And this can be done only by arriving at the correct form of language through its intrinsic thought. Mechanical copy-writing, parsing, analysis, and construction, can only stultify unless thought is the foundation, and there is an abundance of material, beautiful and elevating, which will produce this result when we rightly view nature and literature.

FREDERICK GRIGGS.

THE PHILOSOPHY OF EDUCATION.¹

TRUE education is not a process of drilling and training, in the ordinary sense of these words; it is a process of development. It is not putting something on, or taking something in, but a development, outward and upward, of something that is within. True education is not a thing conceived and received from without, or put on like a garment; it is something that is born within, and grows outward.

The purpose of education is not to teach the child something, but to make him something. We ought not to try to get something into the child, but to get something out of him. The child is not to be ornamented or decorated with "culture," but rather to be unfolded and developed in his inner nature. The genuine rose is a thing that grows out of a bush; a paper rose is one that you can pin to a bush or to anything else. The closer you look at the real rose, the more beautiful it appears. Look at the paper rose with a magnifying glass, and it appears like a shapeless mass of sticks and straws. Turn the glass on the real rose, dissect it, and look down into its delicate, intricate structure, and there is opened up a

¹ Abstract of a recent lecture before the students of Battle Creek College, by Dr. J. H. Kellogg. Continued in February.

whole world of beauty undreamed of before. So it is with the unfolding of an education that really develops the individual; every phase of the process brings out a newer beauty and a richer fragrance.

The teacher needs a sound philosophy by which to square his work. Before deciding on the *method* to be used, he must know *what* is to be done. The physician must be able to diagnose the case before he can treat the patient properly. And so the teacher must first make a psychological diagnosis of his pupils before prescribing the system of education.

We shall never have the right kind of education in operation until we have developed the true philosophy of education; and we can never have this until we have carefully studied what the child is, and what he should become when normally educated. As a basis for such a study, I will submit the following definition: A child is, first, a machine; second, a personality; and, third, an incarnation. If there is anything else embraced in the being of a child, I do not know what it is; and I am sure that if we carefully consider the child in these three relations, we shall have laid the foundation for a correct philosophy of education.

Considered as a machine, the child is simply a vehicle of energy. A machine does not make energy, it merely transmits it, or transmutes it into some other form. So the body, as a machine, is only a means of utilizing energy, like a locomotive, a wheelbarrow, or a watch. The energy expended in the body is manifested in several different ways; through the brain, as mental energy; through the muscles, as muscle energy, or work; through the various glands, as secretory energy; and in general, as animal heat. And the amount of this energy utilized every day in an adult normal body is tremendous—no less than one million seven hundred thousand foot-pounds! No machine ever made by man could begin to put forth so much energy as is daily manifested in that divine machine which we call the human body in proportion to the amount of food or fuel consumed.

But whence does all this energy come?—It must be brought into the body from without. You can not run a locomotive without fuel and water. The amount of work which a locomotive can do is determined by the amount of fuel it can burn, and the water it can evaporate, in a definite period of time. The greater the amount of coal that can be utilized, the greater the work done. And so with the water-wheel; the larger the quantity of water it can utilize, the greater the energy developed by it.

This principle is true of all machines, including the human body. The daily-food taken into the body corresponds with the coal and water. The measure of energy in the body is the food it can utilize.

Animals utilize and expend energy; plants store it up in the form of food. The great source of all physical energy in this world is the sun. It is the constant supply of energy from the sun that makes plant life possible, and through it all other life. It is the sun that ultimately drives the locomotive and the turbine wheel.

I have said that the vegetable builds up, and the animal tears down. The vegetable stores up energy, while the animal expends energy. This is the divine order of things. But sometimes one animal eats another animal. That is like feeding a locomotive with coal stoves. Some energy may be produced that way, but it is not the rational way. A missionary once asked a cannibal, "Why do you eat human beings—such a noble creature as man?" And the cannibal replied, "The more noble the animal, the more noble the diet." The argument seems irresistible.

Some men are not content to feed on the noblest diet, not even upon animals almost as noble as man, but go down into the ooze, and slime, and filth of the ponds, and select crawling reptiles for food. Some go even down to the bottom of the ocean, and take from its slimy ooze such creatures as oysters, clams, and crabs,—the lowest of all scavengers living upon filth,—and suppose they are going to build up their bodies from these. Instead of going to the original source of energy, the vegetable kingdom, man often takes his nutriment at second hand, under the delusion that food is improved by being incorporated into the bodies of various animals. It is improved in the same way that fuel is improved by putting it into a stove before putting it into a locomotive or a furnace.

There is a divine energy in food, because God's power is in it. So the taking and using of food is a divine unfolding of divine energy. Eating is the foundation of all animal life. So a most important part of a perfect education is to teach the child how to eat, what to eat, when to eat, and how much to eat. If I were sending a child away to school, I would be more solicitous about what he was to eat and what kind of air he was to breathe, than what books he was to study. But we seldom hear people ask, "What is my child going to eat?" but the question is, instead, "How soon will he get through his books or his course?" And all this because we do not yet follow a sound, philosophical system of education.

THE EDUCATIONAL PROBLEM.

THE pre-eminent educational problem is undoubtedly this: How to devise and carry out a course of instruction and training that shall in the best way educate all the useful powers in the individual. Any good curriculum necessarily implies or prescribes the means by which it is to be carried out, so that ultimately the important question is, What is the best general course of study which the schools may be able to carry out? "How to improve the course of study" is, and must always continue to be, the perennial subject of supremest interest to the progressive educator. Suggested or attempted improvements must, then, always be welcomed as a possibly greater good, if the effort shows an earnest and thoughtful interest in the problem.

In pursuance of the intention foreshadowed in the last number of the EDUCATOR, I suggest herewith a plan of education suitable for the work of a modern Christian college. It is not offered as a profound and final statement of the whole subject, but as a working hypothesis, proposed in the same spirit with which Mr. Walker speaks of his imaginary educational reform commission: "It would be necessary, in the beginning, for each to submit his own ideas, however crude. The tables presented by the individual members would form a basis for discussion; and from the careful comparison of these plans, would ultimately be worked out the report of the commission."

It is apparent that those who are interested in the subject of educational reform, particularly in Christian educational reform, have not as yet reached a definite common basis of work. There are certain notions and conceptions of educational truth that are generally accepted by our Christian teachers, but we have not yet attained to any adequate conception of the entire system of educational truth. The work in our schools has been said to be in a "transition stage" of development. It might also be added that the work of our schools is apparently in the "competitive" stage; each is going on "its own hook." But there comes a time in every type of normal development, commercial, industrial, or other, when the competitive period of effort passes over into the co-operative stage. When shall we have this phase exhibited in our Christian schools?

Complete and helpful co-operation can come only when there has been an intelligent agreement on the fundamental basis of work. Notions, ideas, conceptions, must be brought into such comparison that the

workers in the common field may see "eye to eye." The EDUCATOR was brought into existence chiefly to assist in reaching these results in the work of our Christian schools. In preceding numbers, many general articles have appeared on the subject of educational reform, the basic principles of Christian education, the Bible in education, etc., etc. Now it seems very desirable to have these ideas and principles more definitely and concretely applied.

↳ The matter upon which there seems to be the greatest variance of opinion, or at least vagueness of opinion, is the determination of a proper curriculum for the Christian school. What shall the Christian college attempt to teach? Toward what ideal shall its work be planned? How and how far shall its students be educated? These are the questions yet unanswered. The writer believes that they must be answered by our Christian educators, using therefor all the wisdom and knowledge that God has given them. Surely this can not be done by miscellaneous and unrelated experimenting, nor by confining the effort merely to some one or two phases of the problem.

Nor is it sufficient answer to say that the Christian college must educate for a noble and useful manhood and womanhood; that it must develop and train the student to the utmost in right ways; that it must not hold the student too long to his course of study; and that it must not teach him error. The questions still remain—How noble? How useful? What are the right ways? and, How long shall they be studied in school? It is granted that these questions must be answered according to the special circumstances of the individual student's case; but *the educational system ought to fit the case* of each student; and of itself to answer all these questions at the proper time.

To do this, it must be a system, not a conglomeration. It must follow a clearly conceived plan. It must not be the product of any one man's mind, or of any one school. It must have in it the best thought of all who are best qualified to be Christian educators. Each must contribute his mite as God has bestowed upon him.

In harmony with this conception, and in the interest of furthering the best school system of Christian education, I venture to submit the following outline as a basis for constructive criticism and for further development. It is offered not as a detailed year-by-year course of study, but as a statement of at least some important things that a student should have learned who is graduated from a first-class Christian college.

A SCHEME OF EDUCATION IN THE CHRISTIAN
COLLEGE.

FIRST GROUP.—WISDOM.

I. *History (with Geography).*

1. Bible.

Study beginning with simple biography of Bible characters, and ending with History of the Canon and Versions.

2. United States History and Government (studied together), including a sufficient study of English History to furnish necessary information. Present social, industrial, educational, and religious tendencies in the United States.

3. General History of the World.

In outline; beginning with Genesis and then passing through the great universal empires down to modern events, studying particularly how and why "history repeats itself." Philosophy of civilization.

II. *Ethics.*

General principles drawn from the Bible and systematically arranged. Illustrated by a study of the life and influence of the great men and systems of ancient and modern times.

1. Relations to God.

2. Relation of the Sexes.

a. Significance of Attraction.

b. Rational Selection.

c. Courtship.

d. Conditions of Married Happiness.

3. Relations with Fellow Men.

a. Competition.

b. Co-operation.

c. Vocation (and Avocation).

III. *Civics.*

1. The Family.

2. Origin and Theories of the state.

3. Comparative Study of Constitutional Governments.

4. General Ideas of International Law.

IV. *General Philosophy.*

Including Theology and Education.

SECOND GROUP.—LIFE.

I. *Anatomy and Physiology (with Drawing).*

1. Vegetable.

2. Animal.

Both leading to General Biology.

II. *Hygiene and Sanitary Science.*

1. Food.

2. Air.

3. Exercise.

4. Rest.

5. Prevention of Disease.

6. Treatment of Disease.

7. Clothing.

8. House Drainage.

9. Lighting, Heating, Ventilation.

III. *Synthetic Psychology.*

1. General Principles, as illustrated in every-day life.

2. Habit, Heredity, Temperament, Character.

3. Correct Self-estimate.

4. Physical, Mental, and Moral Interrelations.

THIRD GROUP.—SCIENCE.

I. *Mathematics.*

Geometry and Algebra introduced early in connection with Arithmetic. Practical applications of all principles. Trigonometry and Higher Mathematics taught only to advanced students for practical use in Surveying, Mechanics, Astronomy, etc.

II. *Physics (with Drawing).*

Philosophy of common physical phenomena.

Applications of all advanced study. Laboratory methods. Psycho-physical experiments.

Principles of Mechanics.

III. *Chemistry.*

1. Inorganic.

2. Organic.

Including Food Analysis and Chemistry of Cooking and Digestion.

IV. *Astronomy, Geognosy, Mineralogy.*

FOURTH GROUP.—LANGUAGES.

I. *English (with Penmanship).*

1. Grammatical and Rhetorical Principles applied. Classic English studied to cultivate literary taste and for its historical value.

2. Special attention to letter and press writing, extempore speaking, etc. Logic taught in reasoned discussions.

3. History of the Language. Thorough drills in word analysis and synthesis from the Anglo-Saxon, Latin, and Greek elements. Orthography and Orthoepy.

II. *French.*

III. *German.*

One or both with sufficient thoroughness to open up the literature—especially scientific and educational—in these languages.

IV. *Ancient Languages.*

1. Latin.

2. Greek.

Each only sufficiently to complement and systematize material previously used in word analysis, unless for students who desire to become ministers, teachers, editors, or workers in other lines that require considerable linguistic knowledge.

3. Hebrew and New Testament Greek.

For those who desire to make a thorough study of the Bible in the original languages.

FIFTH GROUP.—PRACTICAL ACCOMPLISHMENTS.

I. *Voice Culture.*

Breathing, Speaking, Reading, Singing.

II. *Conversation and Personal Manners.*

Including a knowledge of Social Usages.

- III. *Mind Culture.*
 IV. *Rapid Writing and Readiness in Public Speaking.*
 V. *Drawing and Illustrating.*
 VI. *Music*—theoretical and instrumental.

Only rudimentary instruction in the last two unless unusual talent is discovered.

SIXTH GROUP.—BUSINESS TRAINING.

- I. *Principles of Organization and Economy.*
 Illustrated in Farming, Manufacturing, Transportation, Government Departments, Store-keeping, Publishing, etc.
 II. *Bookkeeping.*
 Taught by practise in actual business operations.
 III. *Indexing and Filing of Books and Papers.*
 IV. *General Ideas of Personal and Legal Responsibility.*

SEVENTH GROUP.—INDUSTRIAL WORK.

- I. *Agriculture.*
 As a primary form of physical occupation, Agriculture should have special attention in General Management, Rotation of Crops, Analysis of Soils and Plants, Fertilizing, Drainage, Care of Shrubs, Trees, and Live Stock.
 II. *Useful Forms of Manual Training.*
 Including the Handling of Common Tools, Simple Wood and Metal Work, Sewing, Cooking, Stenography, Typewriting, etc. These to accompany and be co-ordinated with the class-room work.
 III. *Study of Great Inventions, Discoveries and Processes.*
 IV. *General knowledge* of the various professional and mechanical arts, and of their relations to each other and to society.

Nothing is here suggested as to the order of time in which these subjects should be taught, nor as to the practical and pedagogical relations between them. These considerations may be dealt with after agreement has been had on the correctness of the subjects themselves. The *how* is always easily derivable from the *what*. It seems important at this stage to confine attention to such questions as these:—

1. Does the foregoing schedule embrace a proper list of subjects for study in a Christian college?
2. Is it too full or too meager? What should be eliminated or added?
3. Are the various groups of subjects arranged in the order of relative importance?

The writer earnestly invites criticism, additions, or amendments from all who will thereby answer these questions. Do not withhold your assistance now, and then condemn later. Express your views plainly, and support them on the best authority you know. Send them promptly to the CHRISTIAN EDUCATOR.

F. W. H.

Physical Education

MANUAL TRAINING IN OUR SCHOOLS.

THE idea seems to prevail in the minds of many, who perhaps have not given the subject a very thorough study, that manual training means simply training the *hand* to certain movements that are required in the different manual occupations. But that there is another and much broader interpretation of the term, and one that its most enlightened advocates have given it, is shown by the fact that it is so rapidly working its way into the schools of the world, both public and private.

There have been broad-minded men and women who have felt the lack in our educational system to meet the demands a practical world makes upon the young men and young women who are graduated from our institutions of learning; and this has led them to study the question, and work out principles which now make it possible for students, while getting the necessary mind-training, to be getting along with it something that is of practical benefit. It has been demonstrated again and again in the schools of the world, until now it is an established fact, that the different lines of manual training afford much of the same discipline of mind that has heretofore been obtained solely from books. And so manual training is coming to be looked upon as one of the greatest factors in educational work, and is taking its rightful place as a mind-trainer alongside of the purely disciplinary studies, and work and study are thus going hand in hand in honorable companionship.

But how shall we relate ourselves and our schools to this "new education"? Years ago there were laid before us sound pedagogical principles; but because we could not see every step, we did not have the courage to step out from the old beaten paths, nor the faith to lay hold of these principles and apply them. To-day we find ourselves just arousing to the fact that while we had the privilege of leading out in these advance ideas, we now stand almost the last in the list of those who are falling into line.

I quote from "Christian Education:" "We need schools . . . to educate children and youth that they may be *masters* of labor, and not *slaves* of labor." "There is science in the humblest kind of work; and if all would thus regard it, they would see nobility in labor." "In agricultural or mechanical occupations,

men may give evidence that they appreciate his gift in the physical powers, and the mental faculties as well." "The various trades and occupations have to be learned, and they call into exercise a great variety of mental and physical capabilities."

If the various trades and occupations have to be learned, we must have teachers to teach them. The ordinary mechanic who has learned his trade in the ordinary way, sees nothing in it but the means which will provide him with a livelihood. If such a one should be called to teach even what he calls "his own trade" to another, he will do it in the quickest way to gain a visible result; and the student has no opportunity to exercise his mental capabilities, and so gets no mind-training from the exercise. But to be a true educator, one must be able to draw out the mind of the student to formulate a reason for every step. "Let the worker see what advantage he may gain in the humblest occupation, by using the ability God has given him as an endowment. Thus he may become an educator, teaching others the art of doing work intelligently."

Our attention has also been called to the fact that we should give students a speedy preparation for their life-work, and not confine them to long courses of study; but how to do this and still "not lower the standard" of education has seemed to be a problem difficult of solution. But from some of the statements quoted above, it may be seen that there is art and science in work, even of the humblest kind. When we have well-trained teachers, who are capable of seeing and bringing out the art and science that underlie various kinds of work, and who will so correlate the practical and mental that the mind will be disciplined and the hand trained to become the agent of the mind, then the students will be getting an all-round education; and the necessity of holding to long courses of study for requisite mental drill will no longer exist.

Again we are told that trades should be taught, and our students prepared to support themselves and teach habits of industry to others. Now, in the field of trades, principles are few, but their application is infinitely varied. There are a few tools that, when mastered, give the key to a series of corresponding occupations. The square, saw, plane, chisel, and gouge can be applied to a wide range of industries, and an ordinarily ingenious person, who has learned the underlying principles of these simple tools, can advance himself at will to the highest skill in a great number of occupations. In iron-work, such tools as

the square, chisel, hammer, file, chuck, and lathe are fundamental; and the mechanic skilled in the use of these, and with a knowledge of drawing and design, can follow a great variety of employments; for "he enters the vestibule of all the trades that labor in wood or iron, on brass, copper, stone, tin, ivory, gold, silver, or the precious gems."

In connecting shops with our schools, should it not be our aim to teach these underlying principles, rather than to confine the student to working at any one of the so-called trades? When we give students basic principles, are we not giving them a broader field for usefulness in industrial lines? And will they not be better prepared to overcome difficulties, and to adapt themselves to the conditions which they will have to meet as they go into the world to carry the gospel of true Christian education to all nations, kindreds, tongues, and peoples?

A. J. BRISTOL.

The Mother's School

HOME SCHOOL LESSON.—NO. 5.

BLACKBOARD WORK.

- AND God said, Let there be a firmament.
 And God made the firmament,
 and divided the waters which were under the firmament from the waters which were above the firmament. Gen. 1:6, 7.
- He bindeth up the waters in his thick clouds. Job 26:8.
 The clouds also dropped water. Judges 5:4.
 I will also command the clouds that they rain no rain.
 Isa. 5:6.
- He maketh the clouds his chariot. Ps. 104:3.
 The Son of Man came with the clouds of heaven. Dan. 7:13.
- Behold, he cometh with clouds; and every eye shall see him. Rev. 1:7.
- And God called the firmament Heaven. Gen. 1:8.
 Thus saith the Lord, The heaven is my throne. Isa. 66:1.
 Out of heaven he made thee to hear his voice. Deut. 4:36.
- The Lord shall open . . . heaven to give the rain.
 Deut. 28:12.
- He . . . satisfied them with the bread of heaven. Ps. 105:40.
- Thus saith the Lord, . . . be not dismayed at the signs of heaven. Jer. 10:2.
- Do not I fill heaven and earth? Jer. 23:24.
 Can any hide himself . . . that I shall not see him?
 Jer. 23:24.
- And the evening and the morning were the second day.
 Gen. 1:8.

From this time forward review constantly the points brought out in previous lessons. This should not be done as a set task, but as a delightful exercise of the child's mind on what he has learned. Get an elementary grammar and other books if necessary to inform *yourself* on what the child may ask.

Have the Bible at hand, and find the place of every text. Teach the child to read the names of the books to which reference is made, also the numbers of chapter and verse, and how to find them himself.

Have the child read the old lessons from the Bible, instead of from the board. Have him copy the lesson from the board, with a pencil, on tablet or slate; and as soon as he learns how to write or print a word, have him place it on the board whenever it occurs in a new lesson.

When he has thoroughly mastered a lesson, change places with him; you become the pupil, and let him practise as the teacher. The best way to learn any lesson is to try to teach it. No one is ever fully possessed of anything until he has passed it on to some one else. This applies to clothes for the poor as well as to truth for the ignorant and Christ for the unsaved.

These lessons should also be made the vehicle of first principles in numbers. If you will look over No. 1, you will see that every word added to the lesson added also one to the number of parts which composed the words. This arrangement can be used in a review lesson as an easy study in addition and subtraction. The parts of words of various lengths all the way through can be used in the same manner; also the numbers of chapters and verses in chapters. There is no need of going outside of the one Book for the first lessons in any of these rudimentary studies, provided the father will bring his business instincts, and the mother her tact, to the work of making up the simple lessons.

Example: How many verses in Genesis 1 does it take to tell all that God did on the first day? How many to tell all that he did on the second day? What is the difference between these numbers? How many must you add to the verses which tell the story of the second day to make as many as it takes to tell about the first day's work? etc., etc., *ad infinitum*.

MRS. S. M. I. HENRY.

AN EXPLANATION.—Please keep in mind that the only portion of these lessons with which the children have anything to do is the portion taken from the Bible. The explanations are entirely for the busy father and mother, who are perhaps so isolated that the "Home School" is an absolute necessity, who have been obliged to "do the best

they could" as to church and school, with no possible means of knowing the most approved methods of work in either.

The "advanced methods" of the institute, whether desirable or not, are beyond their reach. If their children are taught, they must teach them; and if they teach at all, it must be in the most simple and direct way. My purpose is not to furnish lesson hints to those who are already full of ideas with which they are satisfied, but to help those who would like help which is based on principles that are capable of being tested for truth. I desire to aid these to so recall and use what they have stored away in memory that they shall be able to lead the minds of the children in the way of truth instead of leaving them to fall a ready prey to error; and to do this at as small expense of time and labor as possible.

I expect these teachers of the Home School to so digest the lesson with the explanatory portions that they can make out of it whatever the age or condition of their children requires. What I send through the EDUCATOR is only the meal out of which the bread is to be made. Put directly into the hands of the children, it would be absolutely without value.

It will be noticed that the arrangement which I adopt is on the plan of condensation, or *loading up*. It is easier to draw a cart when it is loaded up to a certain capacity than when it is empty. A word is more easily learned when loaded with ideas. There is no such thing as holding an absolutely abstract idea in the memory; it must clothe itself in some form before it can even live as an idea. In conformity with this fact, I believe that it is the better way, all things considered, to clothe a word with all that it will carry, and teach the child how to build out of its cargo as out of a box of building-blocks whatever he chooses. For instance, the word "God" consists of three parts; here you have a lesson in numbers; it is formed of two styles of letters; it is a name-word, or as the old grammar studied by my fathers and mothers of the Home School would call it, a noun; a proper noun when it begins with a capital letter, and stands as the name of the one true God, the Creator of all things and the Redeemer of men; a common noun when it begins with the common "g" and stands for the idol gods of the heathen. These distinctions in themselves furnish opportunity for further teaching in truth.

I have no sympathy with the transcendentalism which has crept even into primary methods. The children are often at the mercy of an embryo "Christian Science" even in the schoolroom, which would make them aimless dreamers, instead of intelligent, thinking, reasoning beings who must have to do with *things* as well as ideas.

I am aware that I am not teaching in harmony with much that is called "up to date;" but this "up-to-date" tendency is not always the safest for those who would train their children to know truth when they see it. There is a principle at stake in the methods which I have outlined, which I believe to be in harmony with the foundation of all things. Progress will not be so rapid at first by these methods; but every lesson will give the child something which he can use at once in such a variety of ways that his interest will not flag. Try it, and see. S. M. I. H.



School Notes



THE enrolment of Graysville Academy has reached almost the one hundred mark, with students from twelve different States.

BATTLE CREEK COLLEGE has sent out this year fifteen missionary teachers, some into foreign lands, and some to take charge of church schools in different States. Others are soon to go into the South to enter the same line of work. Among the latest to other lands are Mr. and Mrs. W. A. Gosmer, to teach on the island of Bonacca, and Mr. and Mrs. W. A. Ruble and Miss Ellen Burrill to South Africa. *Later:* A cablegram announces the sad death of Mrs. Gosmer and a number of other missionaries from yellow fever.

THE laws and customs of the different States in the South require that the white and colored children be kept in separate schools. It makes no difference whether the school be public or private. Thus an ordinary school district must have two schoolhouses and two teachers, in order to do what is accomplished in the North by one building and one teacher.

The Home Visitor is the name of a new periodical about to be published by the faculty of Battle Creek College. It is designed to circulate only in the college territory adjacent to Michigan, and is intended mainly to advertise and promote the work of Battle Creek College. A good telescope is needed in the scientific department. Contributions for this purpose will be thankfully received from people in this district, or from any others who are disposed to aid in such a praiseworthy effort.

GRAYSVILLE ACADEMY opens its second term of four months on February 2. This will be the most important term of the year. Special attention will be given to those who expect to canvass in the South. Last year the students from the academy made an excellent record. This year the general canvassing agent will spend several weeks in school, giving special instruction to the students, and will then accompany them to their field of labor. The South is one of the best sections of the country in which to sell books, but the one undertaking this line of work needs some careful instruction beforehand. There ought to be a large company of first-class canvassers in this

field next summer, and a few months' preparation in school with the general agent would be very helpful.

THE enrolment in Battle Creek College thus far during the year is six hundred and fifty students; present attendance about six hundred.

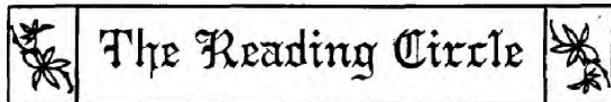
AT the district conference held at Graysville, Tenn., in November, the educational work in the South received special consideration. It was unanimously voted to place Graysville Academy on a substantial industrial basis, and that the name of the institution be changed to "Southern Industrial School."

THE Industrial Department of Battle Creek College has recently been increased by the addition of a shoe shop. Three hundred dollars' worth of machinery will also soon be put in for the manufacture of rugs. Opportunity is thus given to students to learn these trades, and help pay their school expenses.

THE Oakwood Industrial School, located at Huntsville, Ala., has one of the most beautiful farms in all the South. The old plantation building, now about seventy years old, is still in a fine state of preservation. What is needed now in order to make the work a success is a commodious school building. This is our leading school for the education and training of colored youth, and its mission is an important one.

THE students of Battle Creek College were recently entertained and instructed in a two-hour lecture by Dr. Tanner of forty-day-fast fame. The subject was the superiority of a vegetarian diet for students.

PROBABLY the most important development in recent educational history is the announcement of the proposed plans of the new Cosmopolitan University. It is stated that more than twelve thousand students have been enrolled within four months after the school was first projected. After the decision of President Andrews to remain at Brown University, the presidency of the new university was accepted by Dr. Eliphalet Nott Potter, the grandson of Dr. Eliphalet Nott of old colonial repute, who was president of Union College (Schenectady, N. Y.) for nearly sixty years. During the last eight weeks President Potter with his faculty have effected a preliminary organization of the university, and the January *Cosmopolitan* furnishes a brief prospectus of the school. Further information can be had by applying directly to the University.



PAGE'S "THEORY AND PRACTISE."

UNDER this department title, the EDUCATOR purposes to conduct, from month to month, a line of professional reading and study for teachers. Out of the many books that might be chosen as a basis for such study, Page's "Theory and Practise of Teaching" has been taken as probably the best introduction. The following reasons might be urged for this preference: The book has been a standard among teachers for more than a generation; it deals with its subject broadly and untechnically; it has molded the thought and practise of thousands of American teachers; and it was written by an educator of profound religious sentiments. The latter reason if no other should commend it to the Christian teacher. In the words of Chancellor W. H. Payne, it is a book "which no teacher can afford to be without." Many teachers own the book, and have read it repeatedly; but we are not aware that it has ever been studied before on the plan here proposed.

ASSIGNMENT.—Read the Preface, Biographical Sketch, and the first five chapters of the book.¹

BIOGRAPHICAL.

What circumstances in the life of David Page started him in his career as one of the foremost pioneer educators in America? What motive started you in the work of teaching?

What was Page's distinctive characteristic as a public speaker?

Of what State institution was he the first principal? What success attended his work?

What was his age at death? What was his influence on American education?

CHAPTERS I-V.

What are the "three conceptions" of fitness for teaching, stated in their historical sequence? What better ones could you substitute?

What are the three principal objects of professional study? What are the three main phases of the subject?

What should be the "true spirit of the teacher"? Can the best teaching ever be made a secondary interest?

Describe Page's experiment with the "neglected pear tree," and state the lessons to be drawn from it.

¹ We recommend for this study the edition edited by Professor W. H. Payne, and published in 1885 by A. S. Barnes & Co. For those who do not own the book, we shall endeavor to get the best club rates, provided their orders are sent to the EDUCATOR immediately. In any case we desire to receive at once a personal notice from all who will take up this study together. This book can easily be finished in June, 1898, by reading only two or three pages daily; then another study will be offered.

How far do you agree with his views as to the teacher's responsibility for—

- a. The bodily health of the child.
- b. The intellectual growth of the child.
- c. The moral training of the child.
- d. The religious training of the child.

Do the views here expressed agree with the principles of "Christian Education"?

What is the lesson drawn from the N. Y. State prison?

What are the five essentials in the "personal habits of the teacher"?

Does Page put too much emphasis on the "literary qualifications of the teacher"?

Do you agree with him in the importance attached to the subjects of orthography, reading, writing, geography, history, literature, mental and written arithmetic, grammar, algebra, geometry, trigonometry, physics, chemistry, physiology, psychology, ethics, rhetoric, logic, bookkeeping, civics, drawing, and music?

Are there any views expressed, or positions taken, so far in the reading, with which you do not agree? Can you justify or explain your thought on the basis of the fundamental principles of Christian education?²

² All Christian teachers who wish to refute, endorse, or emphasize the opinions found in the "Theory and Practise of Teaching," are earnestly invited to offer contributions on this series of studies. Promptly send us your best thoughts for the profit of all concerned.—Ed.



Observations



THE January *Good Health* comes out in a fine new cover that should help to make it more attractive and popular than ever. It is full, as usual, of timely and valuable matter on health topics. Dr. J. H. Kellogg enters upon his twenty-fourth year in the editorial conduct of the journal, with Mrs. Mary Henry-Rossiter as literary editor.

WE have received Mrs. S. M. I. Henry's recent book, "Studies in Home and Child Life." Out of its twenty-four chapters we instance the following titles: Home Work, The Father's Office, The Mother's Office, Heredity and Environment, The Young Child, The Little Body, Atmospheres, Authority, Culture, Truth Telling, Appetite, Dress, Companionship, Amusements, The Home Church, The Bible and the Child. The book is designed "to stimulate that kind of questioning in the mind of the busy father and mother which is sure to compel an answer,—an argument in outline for daily experience to elaborate." It is none the less a book worth the careful study of pastors, teachers, and all others whose work brings them into co-operative contact with parents and chil-

ren. The whole is written with the chaste directness of style that characterizes all of Mrs. Henry's work. In buckram, 250 pp., price \$1. Fleming H. Revell Company.

WITH its new magazine form and handsome cover, the *Youth's Instructor* enters upon its forty-sixth year under the most favorable auspices for enlarged success. Its beautiful modern cover design furnishes an attractive table of contents, and the general make-up is greatly improved. The cover encloses twenty pages of choice reading-matter divided among the following departments: Gospel Light, God's Handiwork, The Children, The Christian Pathway, The Sabbath-School and the International Lesson, How Things Are Made, Happy Hours at Home, Good Manners, and Editorial. Besides these are the following departments which appear every other week, alternating with each other: Our Wonderful Bodies, and Health Culture; Historical, and Biographical; Music, and Art; Science Stories, and The Science of Common Things. Highways and Hedges, and Literature, also appear from time to time, besides general articles from contributors. New departments will be added as the magazine increases in size, and new fields of interest for its readers are discovered. It is evident from its contents and style that the purpose of the editors is to put forth as much effort to make the real, true, and important lessons of life and observation interesting and attractive to our youth as many other papers do to make interesting the unreal, the unimportant, and the untrue. The *Instructor* occupies a sphere all its own, and is unique among weekly magazines in supplying an interesting and instructive literature for the young that is entirely free from sickly sentiment, trash, and excitement. It ought to have the 100,000 circulation for which the publishers are now planning. We shall have frequent occasion to refer our readers to the *Instructor* for wholesome illustrations of the best Christian education for the young. For free sample copies, address the Review and Herald Publishing Company, Battle Creek, Mich.

FROM Ginn & Co., a new "Practical Physiology," by Albert F. Blaisdell, M. D. All text-books on this subject are supposed to be practical, and it would seem that they are already numerous enough; but this is certainly one of unusual excellence. It is written on the principle that "a mere knowledge of the facts which can be gained in secondary schools concerning

the anatomy and physiology of the human body, is of little value or interest in itself; such facts are important and of practical worth to young students only so far as to enable them to understand the relation of these facts to the great laws of health, and to apply them to daily living." The book therefore lays especial emphasis upon the importance and means of maintaining personal health of body. A large number of carefully planned, but simple, experiments are offered to illustrate and demonstrate the text. Alcoholics and narcotics are fully treated. A specially excellent feature is the abundance and clearness of the cuts that are used as illustrations. The use of various microscopes is explained, and vivisection in the secondary schools is strongly condemned. Excellent 18-page glossary. 440 pp., fine red cloth, price \$1.30.

"We shall never have the right kind of education in operation until we have developed the true philosophy of education; and we can never have this until we have carefully studied what the child is, and what he should become when normally educated." (J. H. K. p. 105.) This emphasizes the importance of child study on the widest basis. It also emphasizes the importance of certain qualifications in the teacher. No one is fit to be a gardener who merely plants an unknown seed, and then raptly gazes, with folded hands, wondering what it will become. If he knows anything about gardening, he knows the difference between various seeds, what kind of plants each will produce, when they blossom, when they mature, and what kind of soil and culture they require all the way along. So no one is fit to be an educator of youth who has no definite ideal of education, no particular method of procedure, and no clear notion of the results to be produced. Such a one would better do his experimenting on plants. The real educator must know when to plant, how to till, and when to send the crop to market. He must have a system of culture, always open to improvement, but always a system. He must have foresight of the ends to be accomplished. He must know how to fertilize and how to prune. He must understand the true philosophy of education. And this philosophy comes by saving, comparing, and systematizing all the valid and valuable results in the sum total of educational experience. Every educator must pass in his contribution to the general fund, his tithe of income from the Source of all wisdom and knowledge.



PUBLISHED MONTHLY AT

BATTLE CREEK, MICHIGAN, U. S. A.

PRICE, 40 CENTS PER ANNUM.

SEND BY POSTAL MONEY-ORDER.

FRANK W. HOWE,

Editor.

DURING the past month, the editor of the EDUCATOR had the opportunity of visiting in Chicago the Jewish Manual Training-School, the Armour Institute of Technology, and the Chicago Manual Training-School. These schools are all in the front rank in their respective lines. Space does not permit here any extended notice of the work carried on in each; but we are glad to be able to publish an important contribution from the superintendent of the Jewish School. It is worthy of careful study. The EDUCATOR is also fortunate in receiving some valuable matter from Dr. Belfield, the director of the Chicago Manual Training-School, who was sent by the United States government, some years ago, as a special commissioner to investigate the trades schools of Europe.

THE explanation attached to Mrs. Henry's lesson this month has an application also to the December lesson, and to all that will follow. Some may not agree as to the advisability of teaching the parts of speech by their technical names to young children; but it should be remembered that these lessons are adapted to children who may differ widely in age and natural aptitude. The lessons are addressed to parents, not to the children, and terms are used which the average parent will understand. The parent should be wise enough not to press upon the memory of the child fine grammatical distinctions which his mental development has not yet prepared him to understand. Such points can be reserved till later, but not indefinitely. We believe that parents should always maintain intellectual leadership over the child, in language as in everything else, and that both by example and precept the child should have thoroughly learned the grammatical rudiments of his mother tongue before going to school away from home.

? Queries for Students ?

1. What is an *atelier*? ellipse? trapezoid? transcendentalism? vivisection?
2. Who said, "sermons in stones"? What is the rest of the quotation? Who was David P. Page? W. H. Payne?
3. What is the difference between "prescribe" and "proscribe"? What is meant by "foot-pounds"? secondary schools? vocabulary?
4. What is a chancellor? an earl? Name the various orders of the English nobility from the lowest upward.
5. What is the meaning of "ethics"? "synthetic psychology"? "technology"?

THERE is one thing, among many others, that we especially like in our readers and correspondents, and that is their responsiveness to the numerous questions we throw out. The teacher habit is still strong upon us, and doubtless our editorial utterances are not always as staid and dignified as some people think they ought to be. But we like to feel that every reader of the EDUCATOR is personally interested in all the subjects it discusses, and we are sure that it may become more and more valuable to all in proportion as we know the real wants and aspirations of its patrons. Each number of the paper is simply our personal letter to each reader, *printed* merely because we can produce it and mail it cheaper in that form. That is what we mean by the CHRISTIAN EDUCATOR Family. Your personal address is on the mailing label; and so, if possible, we want to get your personal answer to every important question that is designed to promote the highest Christian education especially those on "The Educational Problem" in this and later numbers.

WE expect "our readers" will be pleased with some improvements shown in this issue of the EDUCATOR. In the February number a new department, "The Farm," will be inaugurated, for the educational and practical benefit of farmers and farmers' families. We should be glad to hear from any other educational journals that devote any space to this purpose.

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