

CHRISTIAN EDUCATOR

A MAGAZINE FOR HOME AND SCHOOL

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No. 2

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Features of November Educator

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OUR PRESIDENT

Our President is an excellent example of what any man can do for himself physically while leading a strenuous life. He entered the White House physically unfit for his great task. Through systematic daily exercises and healthful living under the direction of an expert, he is today in perfect physical trim, though his entire administration has imposed upon him a kind and an amount of labor unequalled by that of any predecessor in office.

CHRISTIAN EDUCATOR

W. E. HOWELL, Editor

C. L. BENSON, Associate Editor

VOL. X

TAKOMA PARK, WASHINGTON, D. C., OCTOBER, 1918

No. 2

PHYSICAL FITNESS

If one element in true education is usually neglected above another during school life, it is physical fitness.

If one element of efficiency in either private or public life is needed above another in these strenuous times, it is physical endurance.

If one essential to superlative progress toward any mental or spiritual goal can be put above another, it is physical vigor.

No teacher in a Christian school is worthy of his position who does not understand, teach, and practice the principles of healthful and vigorous living.

No young man or woman, with or without a diploma, can be said to be educated who does not come out of school in better physical trim than he entered, and has learned how to keep his physical powers at par.

No parent wants to send his son, or daughter either, to a school and have him come out at the end of his course physically unfit for the serious duties of life.

Physical fitness is a primary test applied by the Mission Board to every candidate for service in the foreign field.

Physical unfitness has kept many a man and woman from entering upon valiant service overseas that they were otherwise prepared to do.

Physical unfitness has brought more foreign missionaries back to the homeland than any other one cause, and possibly more than all other causes put together. It has been estimated that one out of every three who go abroad returns home because of physical breakdown, if indeed he does not find a permanent resting place in foreign soil.

Physical fitness promotes a happy and successful home life.

Physical unfitness has wrecked the plans of many a youthful pair just entering upon the responsibilities of life.

PHYSICAL FITNESS should therefore be the slogan of every teacher, student, parent, and worker who is aiming toward the superlative life.

The Sacredness of Health

Mrs. E. G. White

Since the mind and the soul find expression through the body, both mental and spiritual vigor are in great degree dependent upon physical strength and activity; whatever promotes physical health, promotes the development of a strong mind and a well-balanced character. Without health, no one can as distinctly understand or as completely fulfil his obligations to himself, to his fellow beings, or to his Creator. Therefore THE HEALTH SHOULD BE AS SACREDLY GUARDED AS THE CHARACTER.

The youth, in the freshness and vigor of life, little realize the value of their abounding energy. A treasure more precious than gold, more essential to advancement than learning or rank or riches,—how lightly it is held, how rashly squandered! How many a man, sacrificing health in the struggle for riches or power, has almost reached the object of his desire, only to fall helpless, while another, possessing superior physical endurance, grasped the longed-for prize! Through morbid conditions, the result of neglecting the laws of health, how many have been led into evil practices, to the sacrifice of every hope for this world and the next!

As the foundation principle of all education in these lines, the youth should be taught that THE LAWS OF NATURE ARE THE LAWS OF GOD,—as truly divine as are the precepts of the decalogue.

The Example of Two Presidents

President Wilson's Health Program, as Stated by the White House Physician in "Physical Culture" for March

President Wilson went into the White House in the most unhealthy physical condition of any man ever called by this country to assume the duties of its Chief Executive. Today it is questionable if there is in the entire nation a man who is in a higher state of health or who is in a more perfect physical condition.

President Wilson's program of health is nothing more nor less than a well-ordered life, a well-balanced daily regime, which includes a due proportion of work and play and sleep, intelligently systematized, and common-sense habits of eating and drinking and exercise, and personal hygiene.

Physical exercise has been the means of making a normal, physically perfect man of the President. By his physical program in daily life the President truly is giving a most remarkable and inspiring message of health to the nation.

Ex-President Roosevelt's Testimony on the Value of Physical Culture, in "Physical Culture" for February

A NEW COMMANDMENT

"If it were within my power, I would make a new commandment. That commandment, like those of old, would be for the good of every person, young or old, weak or strong, sick or well, rich or poor, and it would read:

"Thou and thy children and thy children's children shall frequently and regularly practice some approved form of physical culture; not for thine own good alone, but for the good of thine offspring, aye, for the good of the community, for the nation, the state, and society, and for all humanity. Selah"

"The proper application of rational, intelligent physical culture would prevent the premature physical collapse and mental breakdown of the thousands who now clutter up the doorstep to the House of Achievement."

EDITORIALS

What is Physical Education ?

THIS is not asking, What is physical health? It is not asking, What will prevent disease? Nor is it asking, What will cure disease? nor yet, what will promote health? Physical education involves all these, but it is not the equivalent of any one of them. In order to educate physically, one must ask, What is health? so that he may intelligently remove causes that interfere with health, and learn such rules of living as will preserve and develop health. But physical education comprehends more than health, or learning how to obtain and preserve it. Man may possess physical health and not be physically educated. It is possible to conceive of a man's being sound in body, but not physically well developed. If not well developed physically, he is not living a superlative, but a mediocre life, possibly even a negative life.

Physical education embraces (1) the answer to the question, Am I physically sound? If not, wherein am I defective? Many have physical defects not suspected by their associates, and often not even by themselves. It needs the eye of an expert to determine whether or not a man is sound physically. This implies on the face of it, physical examination. The proper person to make it is a physician, as his very name indicates.

Physical education embraces (2) a remedy for each kind of physical defect discovered. The remedy is needful whether the defect is an inherited one, the result of an accident, or the consequence of disease. Any of these three may seriously hamper the enjoyment of health and the development of physical vigor to its normal capacity. The remedial agency is of as great consequence as the discovery of defects. The earlier the remedy can be applied in the child's life, the better promise there is of over-

coming the trouble. This argues strongly for physical examination of boys and girls as soon as they enter school if not before.

Physical education embraces (3) the development of physical vigor. This step is essential whether the body is sound or defective or diseased to begin with. If the body is diseased, there is little chance for physical development until the disease is removed. If the body is defective, comparatively little progress can be made in physical development until the defect is corrected. The healing of disease and the correcting of physical defects are both preliminary measures, like removing weeds or refuse from the soil so it can be cultivated. If the body is sound, it is ready for physical development to begin.

There is, therefore, no such thing as physical education without considering the state of the health, measures for bringing it to a normal state, and provision for developing potential into kinetic vigor. Many elements of disease and physical defects go on unnoticed and uncared for while effort is being made to develop the mind and the heart life. This is putting the cart before the horse. It is working with one's hands tied behind him. It is walking the pathway of life blindfolded. It is going to school without books or a teacher. It is the sum of folly.

Physical education means to examine, to remedy, to develop. All three steps require the intelligence of the expert. There can be no education without the teacher. The teacher is simply one who has gone over the road, knows the way, and guides the feet of the inexperienced to the desired goal. There can be no education, physical or otherwise, without a true vision, a definite perspective, a clearly discerned goal, with one as leader and guide who has himself made the goal.

Why is Systematic Physical Culture Essential ?

A BRIEF answer to this question 'is found in the fact that culture of any kind, if it arrives anywhere, must have a goal, and know the way to reach it. Neither a goal nor the means of attaining it can be discovered without thinking and planning. A good plan and its execution always imply systematic effort.

One of the great causes why physical culture is needed at all, is the irregular life one leads if he follows his inclinations too largely, or allows business or pleasure to make unreasonable demands upon his time and strength. It is because men do not think ahead, do not look before they leap, that they rush headlong into physical wreckage. Nowhere is this course more likely to be followed than in a school, where mental culture has been too exclusively the dominant note, or in the church, where spiritual culture is the sole aim. Both mental and spiritual culture are ardently to be pursued, but if in pursuing them a man is forgetful of his physical necessities, he is tying his own hands and hobbling his own feet for progress.

There is no remedy for such faults but to *plan* for his physical welfare. The kind of planning he should do is suggested by his regularly recurring need of food and drink and sleep. These are daily necessities. Ordinarily he must sleep once a day, eat two or three times a day, and drink many times a day; and he must do all these every day if he fares well. These are physical necessities. Physical culture may seem to lead us beyond physical necessities in the ordinary sense of the term, but in reality it does not. Our necessities are measured by what we are aiming to accomplish. If we are willing to lead a mediocre life, systematic culture is not necessary. If our ambition is to live a superlative life, physical culture is indispensable, and more than this, systematic physical culture is imperative. The old proverb runs, "There is no excellence without great labor," but great

labor alone will not necessarily bring excellence. Excellence requires labor definitely shaped to some well-defined objective and pursued by some system that assures the reaching of that objective.

If therefore, learning from the simple rule of life, we attend to physical culture as regularly as we do to physical necessities, there is hope of success in attaining the physical maximum of usefulness and enjoyment. Physical culture is a thing for the ambitious, for those who aspire to be something more than they are, and to do something more than they do. It is essentially and without dispute a thing of education. If any kind of education at all is in need of being systematic, it is vitally so with physical culture. If it is necessary for successful business methods to be systematic, it is imperatively so with physical culture, since it lays the bodily foundation for successful business, and for that education which purports to be effective in preparing for the vital activities of the efficient life.

Conditions in Our School Life That Emphasize the Need of Attention to Bodily Health

WHILE conditions in our school life make it obvious to even the casual observer that physical health is a necessity to the student who expects to realize his full purpose in coming to school, it is profitable to set down here in a definite way what some of these conditions are.

1. *Our aims are high.* In the nature of their purpose, no school or class of schools aims higher than do ours. We profess to embrace in our purpose the highest kind of physical development, mental culture, social progress, and spiritual growth. No aims could be broader or higher than these. If we are aiming high, we need every possible advantage that bodily vigor will give us if we hope to attain our aim. This is the first and most emphatic reason for our giving more than ordinary attention to the physical welfare of both the teachers and the

students in our schools. The higher the degree of physical health, the keener the mental acumen may become if bodily health is applied to mental effort. The sounder physical health is, the sounder the spiritual health. Disordered digestion beclouds hopefulness, dulls the wits, and distorts the vision. Frazzled nerves spoil the disposition, weaken courage, and devitalize faith. Without these moral virtues we cannot aim high, nor attain our aims if we do.

2. *The strenuous life.* Life in our schools is strenuous. This is so because our aims are high, our time for being in school is limited, our means for paying our way are meager. We are preparing for a service that calls for not only the best there is of us, but the best that we can make of ourselves. We believe that time is short, and that our fitting up for service should be as speedy as it can be made consistent with true efficiency. There is no stimulus to hard work like a moral motive or a spiritual aim. The burden of our teachers is far more than intellectual, it is highly moral. Nothing exacts an expenditure of vigor like moral responsibility. The work of our students, as they catch the spirit of the teacher, becomes of the same nature. Every student wants to learn all he possibly can, and learn it well. The very fact that life is strenuous in our schools emphasizes the great need of unusual attention to bodily health.

3. *Missionary service is exacting.* The service for which our young people are preparing is exacting in its nature. In scope it embraces the world, and includes every creature in it that has not received the gospel. In intensity it demands every fiber of physical and mental energy that a student is able to store up during his school life. In nature it implies the same moral and spiritual responsibility that is carried by the teacher in the school and the preacher in the pulpit. The young man or woman studying in our schools has truly a strenuous life to look forward to. If it is necessary for the national soldier to be hardened phys-

ically through rigorous training in camp and field before he enters upon active warfare, it is equally imperative that the Christian soldier fortify himself physically to the fullest degree possible in view of the strenuous life he must lead in Christian warfare. Whether his work continues at home or sends him abroad, there is a great need of emphasizing the physical preparation for so exacting a service.

4. *The field is broad.* In a fuller sense perhaps than in the case of any other class of students, our young men and women have in prospect, call to service in fields remote from their native clime. There is involved in the entering of such fields a physical as well as a mental readjustment to new conditions of life. The darkened peoples of earth who are in the greatest need of the gospel, often reside in the most unhealthful regions and the most debilitating climate in the earth. If the missionary is to lead the strenuous life of carrying the gospel to them while living under unfavorable conditions of health himself, he must go to his field thoroughly equipped physically to endure hardness as a good soldier of Christ. The very fact that he may go to distant lands and live under untried conditions of physical health, emphasizes in a superlative way the need of giving conscientious attention to his physical development during the days of his preparation.

Conditions in Our Field Work That Demand Physical Vigor and Endurance

THE life of the missionary is one of the most irregular and difficult of control that may be found in human society. The missionary is first of all a servant. His sole aim is to minister to the needs of the people in every sense in which he is capable of ministering. This includes physical and social ministry as well as spiritual ministry. Wherever and whenever he can speak a word or turn a hand to do good, that is the place he wants to be, and that is the time he is ready to go.

Put a good missionary in a community, and it will not be very long until the people learn of his unselfish spirit, his readiness to serve, his gift of comforting, and his power to uplift. In times of sickness, or sorrow or perplexity of any kind, they learn to look to the man or woman of God for the help that they need in the hour of extremity. It matters not whether this hour occurs at high noon or in the silent midnight, the missionary is always ready to respond when a soul is in need. He will often miss a meal or lose his sleep, or suffer other physical inconvenience, in the hope that he may do good to some one, that he may send a soul to Christ.

The strenuous life that Jesus, the missionary's great example, led while he was on earth, sets the pace for the missionary himself. He will go on foot or on horseback when the luxury of a car is not available, so that he may fulfil his mission that calls him to minister to every creature, of whatever race or color or state in society, when he is in need. He is inspired by the very message he is giving, always to do his best and not to spare himself. While his joy in the work is an antidote for weariness and for even the impairment of his health that might occur in a joyless life, yet in the days of his preparation for service he will do wisely to give very definite, determined attention to the storing up of physical vigor that will serve him well when the crisis comes.

The gospel worker is much away from his own home. He often sleeps in a different bed several times a week. He changes water, and eats a variety of food from time to time, often daily. He does not always enjoy the opportunity of bathing and otherwise caring for himself physically that he would in his own home. If he endures this kind of life, he must store up an abundant supply of physical strength and keep up, as far as he can, those habits that will maintain his strength during the strenuous days of his missionary service.

The missionary is naturally subject to hearing the woes and the sorrows and

perplexities of the many whom he meets. This often includes a brother or a sister in the faith. When one becomes a teacher, a preacher, or other kind of leader in God's work, all the common people respect his judgment and seek his counsel. He is continually giving out to the people in a moral as well as a physical sense. This is a draft upon his physical strength as well as his moral. This only emphasizes all the more his need of developing a capital of physical vigor while he is looking forward to this kind of life.

One who travels much is more exposed to contagious and infectious diseases by far than one who stays at home. He must to a greater or less degree handle the things that others handle, sit where others sit, breathe the air they have breathed, and in a multitude of ways be exposed to germs of disease from which he would be free in the sanitary conditions of his own household. His system will resist the entrance of germs or other means of taking disease far more successfully if pure red blood is bounding through his veins, and his muscles are hardened through exercise, and his organs performing their functions vigorously, than if all these conditions are in a negative or mediocre state.

All these conditions in the field where the missionary serves, demand in no uncertain tones that both teacher and student give the most painstaking and conscientious attention to the development of vigorous bodily health during school days. How can a school be worthy of the name Christian if it does less?

The Measure of Our Strength

1. Our hold upon God.
2. Our consecration to service.
3. Our spirit of willingness to sacrifice.
4. Our sense of the times we live in.
5. The dedication of our children.
6. The way we educate our children.
7. The value we set on Christian education.
8. How we look on the field.
9. How we live up to our convictions.
10. The measure of our eleventh-hour zeal.

Health Subjects in the Curriculum

IN view of the fact that every consideration in the preparatory period and the after-service of the missionary argues for a high state of physical health and abounding vigor, health subjects ought to stand out like mountain peaks in the curriculum of the Christian school. How can a school be Christian in a broad sense, unless it lays a solid foundation of health as a prerequisite to efficient Christian living and missionary service?

Now the curriculum of a school represents what its managers conceive to be the functions of the school in relation to the young men and women who come to it for help. If the school purports to give an all-round education, it will certainly fail of its purpose unless the foundations of its work are laid deep in a physical ground. True education is more than the pursual of a course of study that provides for mental culture alone. True education reaches down to the foundation of life's necessities. Pre-eminent among the necessities of life is abounding health.

To be frank, it has really been thought if not said, or at least taken for granted if not thought, that if the curriculum of the Christian school covers the needs of a mental culture and a spiritual culture in the subjects that it actually offers, and if it keeps out of the textbooks and of the instruction everything erroneous, and builds positively toward mental and spiritual ends, it is doing its work well, and physical considerations will take care of themselves. In other words, it has been too much the idea that mental and spiritual subjects should command all the credits for graduation, and physical education, if attended to at all, be obtained on the side. It is recognized and said, that we must have wholesome food, a vegetarian diet, right combinations, eat at proper times and in right quantity, take frequent baths, keep the clothes clean, attend to personal hygiene, take enough sleep, not worry, take a morning walk, drink plenty of water, keep sweet, and all will go well. That all these are vital

to health is beyond question. That they are not accounted worthy of systematic study, of laboratory experiment and demonstration, of being dignified with graduation credit on an equal basis with mental and spiritual studies, is one of the strangest of strange things. It is so strange, in fact, that we have prided ourselves as a people and as educators, that we are ahead of other people in believing in the necessity of these things and in practicing them in our personal lives. It is to be hoped that this is so, though we are compelled at times to think that it is not so in the full sense that it might be. It is at least worthy of demonstration.

But after all, the inexplicable thing is that when we look over our curricula of study, we find a minimum of health subjects as compared with mental and spiritual studies. We have made the concession (?) that physical culture may be allowed one unit of credit in the academic course, and this provision looks well on paper as far as it goes. It is a serious question, however, whether we show the same zeal and determined effort to make this credit function well, as we do the required subjects. We have left it only as optional with the faculty or the student or somebody, as to whether the subject is given or whether it gains any credit or not. We have no such thing as a physical culture credit in the college course, even as an elective.

We have made some progress (we shall have to call it this, we suppose) in one direction that may properly be classified as a health subject, and that is a provision for two units of manumetal credit in the academic course, requiring them for graduation. The singular thing is that though required, they are not allowed to come within the standard requirement of sixteen units for graduation, but are added to them. That is, manumetal education is good, but not good enough to merit graduation credit except as an appendage to certain traditional units of a mental and spiritual kind. In the college course we have gone so far (?) as to require eight hours of

manumental education for graduation, that is, the equivalent of one unit; but here again, this is added to, not included within, the minimum requirements for graduation. Yet the college is training the teachers to man our academies. Like college teacher, like college student; like college student, like academy teacher; like academy teacher, like college student. This is a go-round, but hardly a merry-go-round of the right sort.

Domestic science may properly be regarded a health subject. There is certainly nothing on which health depends more than proper sanitary conditions in the home, especially in the kitchen and the cooking, and more especially in the quality, combination, and variety of cooking. This is emphatically a health subject, yet strange to say, the only place it is found in our curriculum is as one of the manumental subjects of which two units are required for graduation, but no unit of any particular kind is specified; hence domestic science may or may not come in even as an elective. It has woven itself into a preparatory nurses' course in one or two of our schools, where it receives the dignity of an academic credit applying on academic graduation other than manumental; but even here it is confined to those who are preparing for nursing. In the college course the only definite provision for domestic science so far is its possibly being given the eight hours' manumental credit required for college graduation. There is a hopeful sign, however, in the fact that a few of our schools are beginning to consider seriously a college course in home economics. Such a course has been well outlined in two or three instances, including one year majoring in sewing, and one year majoring in cooking. If these courses are developed in the same seriousness that we do our science and history and mathematics courses, and the same effort made to provide first-class instruction, there is prospect that this vitally important health subject may stand out as one mountain peak in our college curriculum.

Another health subject is making some

headway in a few schools, and that is systematic setting-up exercises in the gymnasium, and the learning and practice of swimming in the swimming pool. If these two lines of education are kept in proper balance, and carried on with the same thoroughness and efficiency as other lines, they will contribute much toward rounding out systematic physical culture, and will be no less worthy of credit in an academy or college curriculum than are such abstract studies as algebra and philosophy.

On the whole, then, we are making some progress in the direction of giving health subjects their rightful place in the curriculum, though at times that progress does seem painfully slow. We have come upon times that make us think more seriously and more concretely on the necessity of giving health development a larger and more honorable place in our curriculum than ever before. Let us act up to the times we live in.

Teachers' Reading Course

THE Teachers' Reading Course has come to be a vital part of the progressive training of our elementary teachers. No teacher can do his best who does not keep abreast of the best educational thought on the efficiency of teaching. A teacher who does not progress with the times gets behind time — that is the simple story of it. This is the reason why the presentation of the Teachers' Reading Course certificate is made a condition of renewing the teaching certificate.

We believe that this year's selection of books is among the best, if not the very best, that has been made. The new plan calls for the required reading of "Teaching the Common Branches," and the magazine *CHRISTIAN EDUCATOR*, with two other books to be selected from an approved list of four. The report on the reading is to consist of the statement that the book has been read, and a statement of the particular ways in which the reader was benefited by the reading of the book. The full list with prices is given on page 56.

Health Messages from Leading Statesmen

C. L. BENSON

THE world war is emphasizing the need of health and sound bodies. In this supreme hour appalling numbers of men are shown to be physically unfit to render service. Knowledge of nature's laws and stamina enough to live up to common-sense principles would have enabled many to qualify and respond to their country's need.

The March number of *Physical Culture* for this year, contains an article entitled, "The President's Health Message," which explains how Mr. Wilson is able to continue his arduous duties and improve in health all the while. We read:

"President Wilson went into the White House in the most unhealthy physical condition of any man ever called by this country to assume the duties of its Chief Executive. Today it is questionable if there is in the entire nation a man who is in a higher state of health or who is in a more perfect physical condition."

The secret of President Wilson's health was revealed in an interview between Mr. Richard M. Winans and Rear Admiral Carey T. Grayson, M. D., U. S. N., personal physician and health director of the President of the United States.

"President Wilson's program of health is nothing more nor less than a well-ordered life, a well-balanced daily régime, which includes a due proportion of work and play and sleep, intelligently systematized, and common-sense habits of eating and drinking and exercise, and personal hygiene."

Mr. Wilson walks, motors, and rides horseback. He is very fond of golf. But "when he goes to the golf course, he leaves his problems in his office, and his mind is as completely occupied with the golf ball as it was an hour before with the latest tangle in the world's crisis."

Aside from his exercises in the open air, Mr. Wilson takes a number of physical exercises indoors. He practices setting-up exercises, or calisthenics, for strengthening the muscles of the abdomen, back, and chest. He practices deep

breathing. Morning and evening, and often during his busiest hours at his desk, he will settle back in his chair and flex his arms and hands and the muscles of the chest and back, or he will stand erect and throw his body into every attitude, twisting, stooping, and bending.

Dr. Grayson said:

"Physical exercise has been the means of making a normal, physically perfect man of the President. By his physical program in daily life the President truly is giving a most remarkable and inspiring message of health to the nation."

Senator Benjamin R. Tillman, before his death, was regarded as the health mentor of the Senate. In deference to him, smoking was discontinued during the executive sessions of Congress. *Physical Culture* for April, 1917, tells how he lived after receiving a severe paralytic stroke, and how he continued in health although in his seventieth year. In answer to the question, "How do you live?" he replied:

"I try to be as regular in my habits as I possibly can be, get up about the same hour every morning, and go to bed about the same hour every night, sleeping from five to eight hours. Four chief factors are responsible for my being alive today. These are: Drinking hot water; careful attention to diet; my system of deep breathing; and the persistent and regular practice of physical culture."

Senator Tillman drank from three to six quarts of water a day. He ate twice a day by the clock. His diet was simple, consisting principally of vegetables, fruits, cheese, eggs, and milk. Twice a day he practiced a course of systematic exercise requiring from ten to fifteen minutes. One set of exercises was taken horizontally, the other standing. He says:

"My object is to provide active exercise and use for every muscle, every nerve, and every joint of my body."

The February number of *Physical Culture* reports Col. Theodore Roosevelt as saying:

"I feel that I am qualified to speak advisedly, from a knowledge born of personal experience, as to the immeasurable advantages to be gained from intelligent physical culture. During my early boyhood I was a physical weakling. It was for this reason that my mother early sent me to old John Wood's gymnasium on Twenty-eighth Street, New York, for a thoroughgoing course in physical training. At the

end of my first year there I was under the firm conviction, since strengthened and confirmed by observation and a further experience, that such a course of exercises would prove the physical salvation of any youngster having a weak constitution, that it would more perfectly develop normal youth, and serve as a dependable insurance against decline in middle life as well as prevent premature decadence in advancing years."

How to Keep in Physical Trim

C. S. LONGACRE

It is a good deal easier to be a Christian when you are physically well than when your whole system is out of tune with nature. Life presents altogether a different aspect to the person who is strong and healthy, than it does to the person who is weak and sickly. Fortunately, few people need be weak and sickly, if they only know the secret of strength and health.

Physical exercise is absolutely essential to physical well-being. It is only when we fail to conform to the laws of nature that we are obliged to pay the penalty of our own neglect.

As educators, not only must we train the mind to perform its highest functions, but it is our duty to develop, if possible, a strong, robust physique in the child. The motto of every educator should be to develop a sound mind in a sound body. A giant intellect ought to be re-enforced with a propelling power and a physical endurance that is commensurate with its brain energy. This does not necessarily mean 64 ounces of brain and 240 pounds of bodily avoirdupois, but it means a finely developed brain in a hardened and symmetrically developed body.

There is no excuse for having weak and flabby muscles, and misplaced and distorted organs. Nervous breakdowns are largely due to physical exhaustion. Almost any amount of nerve strain and intellectual pressure can be endured, if the body is properly exercised and the physical temper of the muscles is maintained at a high tension. This can be

done by practicing a few simple physical exercises for ten or fifteen minutes each morning and evening. No apparatus whatever is needed in carrying out these exercises. A whole day of toil with a hoe, a hammer, or a saw will not give you the kind of benefits which accrue from the ten minutes of well-directed muscular exercises. The plan which the writer has tested will, in a short time, produce marvelous results in muscular development and increased physical endurance.

The writer has recommended these exercises to men who were physical wrecks, yet intellectual giants, and by faithfully carrying out these exercises for a few minutes daily, these men have accomplished marvelous physical results.

The Daily Program

Just before rising in the morning, while lying on your back, throw down the covers, and free your limbs for the muscular exercise. First, make the muscles in your right leg as tense and hard as possible, then draw your knee to your chin slowly, at the same time resisting the movement of the leg with the muscles, then thrust your leg downward with great force. Repeat movement half a dozen times. Practice the same exercise with the left leg, then with both legs simultaneously as many times.

Next stand on the floor, rise on tiptoe a dozen times.

Next exercise the right arm, making the muscles as tense as possible, and resist every movement of the arm with the

highest degree of muscular tenseness. Imagine you are pulling a several-hundred-pound weight above your head. Reverse the movement downward, all the time resisting every movement with tense muscles. Repeat the arm movement in a horizontal direction a dozen times. Then make a circular movement with arm, exercising neck and shoulder muscles, imagining you are swinging a heavy weight, with tense muscles. Repeat the same exercise with the left arm, then with both arms simultaneously in the same manner, muscles tense all the while.

Then exercise the muscles of the chest by inflating the chest to full capacity, making the muscles as tense as possible, while twisting chest forward, sidewise, and backward as many times as possible before exhaling air from the lungs; then exhale with great force, until every particle of air is eliminated. Repeat half a dozen times.

Next exercise the muscles of the abdomen. Make the muscles as tense as possible. With hands on hips, twist the

body in spiral movements, at the same time resisting every movement by causing the tense muscles to pull in an opposite direction from the bodily twists. Make twelve spiral movements to the right, and the same number to the left.

Next stand erect. With lungs inflated and both arms extended above the head, make a straight hip movement by bending the body forward without curving back or knees; muscles tense. Keep bending until the tips of the fingers touch the toes on the floor. Repeat half a dozen times. Then put hands on hips, sit on heels, make muscles tense, and spring up on toes. Repeat this exercise a dozen times in quick succession.

Always remember that every movement must be made with muscles hardened to the highest tension and resisting every bodily movement all the time.

These simple exercises, vigorously and faithfully carried out, will bring on a good perspiration in ten minutes, and in time will harden the muscles like steel.

(Continued on page 56)

Physical Fitness for the Mission Field

J. L. SHAW

ONE of the first questions asked the prospective missionary is concerning his health. Can he stand the strain and stress of a difficult mission? The climate in most of the large mission fields differs essentially from that found in the United States. Non-Christian people live largely in tropical climates, where the cool, bracing winter is unknown. For many months together the missionary carries on his labors amid the steady heat of the tropics. To the missionary with good digestion, active circulation, and strong nerves, continuous labor is a delight; but to those whose bodies function poorly, it is a constant strain, ending usually with disappointed hopes and a return to the homeland.

A young man may think his health quite good; he is seldom sick and is usually able to work. In the cool climate of

the North he may get through college and enter conference work before he realizes that his physical equipment is insufficient. Then when sent to the mission field, he often breaks down after being there but a short time.

The prospective missionary intent on continuous successful labor in a tropical climate should make a practical study of anatomy and physiology, with the end in view of knowing how to take care of his health. He should know his physical weaknesses, and as far as possible overcome them. He should study the tropics, and learn how to live and work to the best advantage in these climates.

In a tropical climate the digestion is liable to be sluggish. The missionary should realize this, and aid the alimentary processes in every way known to science. Only by being constantly alert

and safeguarding his health can he hope to live and render effective service on the mission field. The old saying, "What is one man's meat is another man's poison," has some grains of truth in it. Foods which agree with one person may not be healthful for another. The missionary should understand the laws of nutrition, and live them out conscientiously, by selecting the most wholesome, palatable foods available, and using them freely.

In the building up of the body for the rigors of mission life, regular, systematic exercise is as important as wholesome food. The muscles develop and keep their vigor and strength as they are used. Those not used deteriorate. Many young men and women looking forward to the mission field are intent on finishing their college course; long hours are frequently spent in study without taking necessary exercise. Frequently we find bright, capable young people doing fair work in their classes, who do not realize the importance of systematic exercise. Nor do they appreciate it after leaving school. The result is flabby muscles, poor digestion, weakened circulation, and a gradual loss of physical and mental vigor.

No one need remain ignorant of the requirements for physical health. Medical institutions, books, and magazines leave our young people today without excuse. With these advantages is needed determination to know our bodies, observe the laws of our being, and enjoy the blessings of health and strength.

There is need of a growing company of consecrated, well-trained workers, physically fit for the hardships of frontier life in the mission fields. Every candidate must pass the medical examination before receiving appointment. Many fail to pass the test. Especially is this true of prospective women missionaries. While we do not have statistics to show, probably from one third to one half could not furnish a bill of health sufficient for the mission field. Poor inheritance does debar some, but many are disqualified who might be strong, and render valiant service in carrying the gospel to those in darkened lands.

Educating a Healthy Student

DR. H. W. MILLER

THE teacher who is endeavoring to get results in educating a student with a diseased body is working at a great disadvantage; doubly so, if he is endeavoring to continue didactic instruction without putting forth any effort to correct the disordered constitution of the pupil. Restoring the sick to health is in itself an education, and to do this, the physician or nurse must follow laws, the same as a teacher who is working to develop and train the mental faculties of the student. To illustrate: The education of a pupil in art or science causes physiological changes in the cell tissues of the central nervous system, by which new relations are established and actual chemical changes take place that leave a new organization, which we call development.

The brain and nervous tissues function through study. The process by which an education is acquired causes changes to take place in the anatomy of the student, the same as learning a trade brings about skill in the members of the body to perform certain functions through the actual development and physiological changes in the tissues. Through education the memory is cultivated and the reasoning powers are enlarged. Through association of the reasoning faculties, the judgment becomes enlarged and more reliable. Just so the daily practice of the fingers on the typewriter, or on the piano, brings into a higher degree of functioning power the muscles of the arm and hand. The bringing of these members of the body into direct and absolute control establishes a habit of skilful playing, making the process of functioning those organs almost without effort. In the same manner an inactive stomach or an inactive kidney may by treatment be developed in its efficiency until a one-time inactive gland will become one of high-degree functioning power.

The doctor and the nurse are in reality schoolmasters, who deal with the disordered organs and tissues of the body. Their first test out the organs' efficiency,

then place them upon exercises for their development. The results are tested, and the processes continued, until a normal state is established. The process of training may continue until these one-time inactive organs become superactive. We might relate instance after instance to illustrate this, but this is the principle upon which sick and disordered bodies are restored to health and usefulness. I have known stomachs which, when tested, showed no hydrochloric acid, after a few months of corrective treatments showed a double-plus amount of hydrochloric acid.

It must be appreciated by every educator that in dealing with the minds of pupils, they are dealing with material things, and that their work in the education of the body will produce material changes. The greatest results will be obtained in the healthiest organisms. Any defect, however slight, will to the extent to which it causes failure in functioning, contribute to the weakness of every other function. In other words, a chain is no stronger than its weakest link, and one weak link weakens every other link in the human anatomy.

Physical and mental development should be associated, and should go hand in hand. The elementary school and the college should labor for the highest physical development of every pupil in the school, and the eradication of every possible physical weakness, during the same period they are aiming at intellectual development.

In our schools careful oversight should be provided for the physical development of every young man and woman, and this should be held out as one of the ideals of an education. If this were done, much of the teacher's time and effort would be saved. The student would be trained in the principles of self-preservation. This would contribute to his future health and longevity. Thus our chief incentive in education, would be the great endowment to this message of healthier and stronger men and women.

Too long have we, in many of our schools, neglected the physical needs of the students. Young men and women, because of the instruction in hygiene and sanitation received in our schools, ought to become strong and robust.

It is impossible, in the scope of this brief article, to itemize the things which the writer believes are needed for the accomplishment of these ends, but a few suggestions might be in order:

1. Both at the beginning of school, and directly following the winter vacation, there should be a week or ten days known as a quarantine period, wherein students should be observed and temperatures taken. In this way epidemics would be entirely prevented.

2. Every student in a college or academy ought to submit to vaccination against typhoid fever and smallpox, unless he can produce satisfactory evidence of a previous vaccination.

3. Physical examination of every student ought to be a matter of routine, not only in our academies and colleges, but also in local church schools. The earlier any physical defect can be corrected, the easier will it yield to treatment, and the more satisfactory will be the results.

4. Physiology and hygiene ought to be taught early in the grades. These principles should be carried out in a practical manner by the faculty of these institutions.

5. In each of our colleges a physician should be employed for at least a part of the year, to give definite public and private instruction on diet, dress, and the general principles of hygiene.

6. Each defective student who has any chance of overcoming his defect, should be encouraged to place himself under the necessary program to bring about the correction. In most instances it will be possible for the student to continue his school work. The writer recognizes that to bring about such a program for health in our schools and colleges, certain changes will have to be made in the curricula; but he firmly believes the results would fully justify the change.

Bearing of Personal Hygiene on Health

W. A. RUBLE, M. D.

ENLIGHTENED people are coming more and more to realize the great importance of obeying the rules of right living if they wish to enjoy good health. Within the range of quite modern history, we read of devastating epidemics of small-pox, plague, and cholera, and within the memory of quite young persons, scourges of typhoid fever, diphtheria, and scarlet fever are vivid. All of these diseases are dependent to a large degree upon unsanitary conditions for their propagation. Where the laws of hygiene have been strictly adhered to, these diseases have almost, if not entirely, disappeared.

The personal element in securing effective sanitation is a most difficult one. Most people, especially we Americans, want our own way, whether it be good or bad, and too often the worse our way is, the more we want it.

Because of Federal, State, and municipal sanitary regulations, the spread of infectious diseases has been almost overcome, so that these diseases are rapidly declining in their mortality. There are few deaths today from typhoid, cholera, and diphtheria, as compared with their mortality a quarter of a century ago. Why? — Because people have been educated to, or required to, observe certain necessary sanitary rules. The more enlightened people observe these regulations because they are right. Others are compelled by law to observe them for their own good and for the safeguarding of the people at large. There is a point, however, beyond which it is difficult for legal requirements to go. Beyond that point any hygienic or sanitary rules become a personal matter, and beyond that we cannot expect legal authority or any other authority to pass. To do so would be to encroach upon personal rights. Practically the only way in which this pale of personal rights can be invaded is through the means of education. The field of personal rights can then be influenced only by rules of personal hygiene.

A few of the matters that we consider as personal hygiene are personal cleanliness, accomplished by frequent proper bathing, washing the head, keeping the clothing clean and tidy, caring for the teeth, nails, and skin. This habit enters the personal private life of the individual, and controls him when he is removed from inspection of all others. Here he becomes a law unto himself, and what one does in private is what the person really is. One may keep his boots blackened and his collar clean simply because they are exposed to public notice, while his teeth may have been neglected for days. He may be able to produce a spotless kerchief, while his stockings may be soiled and perforated.

But, you will ask, what has this personal, individual conduct to do with health? Much, in many ways. To illustrate: Neglect of the teeth leads to their decay. In this case, education in the care of the teeth must begin early in life. Neglect of the teeth in children permits decay of the first teeth. These decayed milk teeth injure the second set, and the teeth are poor throughout life. Food is improperly masticated, myriads of germs in neglected cavities are injurious, the breath is contaminated, and the person's usefulness is lessened. He becomes repulsive to others, and fails to measure up to his possibilities in life.

Again, the matter of frequent and proper bathing and other cleansing processes of the body have a great effect upon health. The skin is one of the great eliminating organs of the body. Waste matter, as perspiration and oil, if permitted to accumulate on the skin, obstructs the perspiration, and the impurities must be thrown off through the kidneys. These organs are overtaxed and may become impaired in their functioning because of carelessness in bathing. Again, every one recognizes that in order to keep the skin of the face and hands in perfect condition, it must be washed and cared

for regularly. It is much more important that the skin over the greater part of the body be cleansed and stimulated by regular bathing. The face, if neglected, becomes marred by blackheads, aene, and blotches. This is because of the inability of the skin to dispose of the waste material. The skin over the rest of the body, if neglected, becomes just as inactive. Again, waste material from the body, if left on the surface, soon decomposes, causing offensive odors, which, when they escape in the air, are held and make the air more or less injurious for breathing. This is what causes the air of a room that is filled with people to be so objectionable to one coming in from the outside. Every one has the same feeling toward a person who is careless in this respect as the little girl had about a boy classmate. When her mother remonstrated with her about treating her

classmate coldly, she answered, "But, mamma, I don't like him, he smells so."

Possibly not so much can be said of the importance of clean finger nails, fresh linen, brushed and pressed clothing, blackened boots, and well-kept hair, as far as their bearing upon health is concerned, but these are an index to the care which one takes of matters of greater importance. The person who is careful of the small matters of personal cleanliness is more likely to be careful in those matters which are of importance to his health.

"Be ye clean, that bear the vessels of the Lord," is a command from an inspired writer that none of us can afford to disregard. Cleanliness is said to be closely akin to godliness. Surely a Christian, an ambassador of heaven, should be clean in his physical as well as in his spiritual life.

Proper Posture a Contribution to Health

G. H. HEALD, M. D.

It is a matter of common observation that persons who have serious defects of posture are not in good health. When we see a person habitually slunk down in a slouchy position, we judge, and rightly, that he is physically below par. On the other hand, when we meet a person with erect posture, we expect, and generally find, other evidences that he is in excellent health. Perhaps, if we have given any thought to this observed relation between posture and health, it was to conclude that ill health is the cause of bad posture, and that when one maintains a correct posture, it is because he is in good health. There is undoubtedly some warrant for this belief. The diminished nervous and muscular energy incident to poor health tends to degrade posture; it is much easier for one in good health to maintain a correct body posture than it is for one in poor health. But this fact should not shut our eyes to the great influence posture exerts on health. If ill health makes for bad posture, it is none

the less true that bad posture makes for ill health, and that improving the posture tends to improve the health.

This fact has long been recognized in the army. The first thing the enlisted man receives in the way of preparation for his duties as a soldier is a series of severe setting up exercises, to make him erect, that is, to give him a good posture. This is not done to kill time or to keep the boys out of mischief, or for any other purpose than to make them more rugged, healthy soldiers. The young man who habitually sits or stands in a slovenly position, would not make a good soldier unless these faults were corrected. It is surprising what a change a few weeks' training will make in the appearance of a squad of recruits. The change in appearance indicates a no less important change in efficiency.

Studies in the anatomy and physiology of the various structures constituting the body have made it plain why and in what ways posture influences physical health.

From such studies, especially as recently conducted by means of the X-ray, it is learned that whenever there is a sagging of the trunk, the viscera, or internal organs,— heart, lungs, stomach, intestines, etc.,— are thrown out of position, and crowded in such a way that they cannot do their best work. There is increased congestion and diminished functioning, and, owing to the stretching of ligaments, there is increased nervous irritability. This statement requires explanation.

When the body is in its normal position, the viscera are fairly well supported by natural shelves, formed by the walls of the cavities; but through malposition, the advantage of these shelves is lost, and the organs sag down, being supported by their ligaments. The constant tug on the ligaments results in various nervous disturbances. Many chronic invalids doubtless owe their trouble to the fact that they habitually sit and stand in cramped positions. It has been demonstrated that the position of the lower border of the stomach may be raised by raising the chin. Perhaps some who have a "prolapsed" stomach and consequent dyspepsia would avoid much of their trouble if they would habitually assume an erect attitude, and not allow the chin to prolapse. If one can remedy the evils incident to a prolapsed stomach by raising the chin, it would seem well worth while to do it.

Proper posture, or "normal" posture, is not the rule among school children who have not had physical training. The study of a large number of school children has revealed the startling fact that more than one half— about 60 per cent— habitually sit or stand, or both, in a faulty position, and have abnormal curvatures in the spine. It has also been shown that if corrective training is begun early enough, these malpositions may be eradicated; but the longer the child is permitted to assume faulty positions, the more difficult it is to correct the abnormality.

The principal reason why comparatively few assume a proper posture is that the force of gravity is constantly

exerted against it. The earth-pull tends to draw the body downward; and to counteract this there must be constantly exerted a sufficient pull of the erector muscles— mostly muscles at the back of the body. Where, through weakness or laziness, these erector muscles relax, the body sags. This sagging is due largely to increased and abnormal curvatures in the spine.

The spine, as is known, is made up of a series of bony disks, called *vertebræ*, between each two of which is a layer of cartilage. Normally the spine has three curves, to give proper elasticity, and to prevent jar of important nerve centers. The spine is quite flexible, owing to the disks of rubber-like cartilage, which can become thinner on one side or the other, according to the pressure exerted. In bending the spine forward, for instance, the front part of a number of the disks become thinner. If for any reason the erector muscles that should hold the spine in its normal position fail to do their work, there is a sagging forward, and if this position is continued indefinitely, the cartilages become permanently thinned in front, so that eventually the spine is deformed, and cannot be made to assume a normal position without great difficulty. This is what is known as spinal curvature. Where the upper part of the spine is sprung in one direction, there is usually a compensatory change in the other direction in the lower spine, both curves serving to diminish the tallness of the individual anywhere from one to four inches, and to diminish correspondingly the capacity of the great cavities of the trunk which contain the vital organs.

It has been observed that men of great trunk capacity, such as Washington and Lincoln, are men of great force and ability. To permit any habits of posture which throttle the vital organs, is to place a handicap on one's future usefulness.

It has already been said that the principal obstacle to a right position is the force of gravity. But there are other important obstacles. Sitting often favors the assumption of a faulty position.

Some persons who stand in a fairly good position, slouch, when sitting, into most unhealthful and ungraceful and undignified positions; and, considering that in our sedentary modern life, many hours daily may be spent in the sitting position, it is easy to understand how faulty curvatures may soon become "second nature."

School desks, if they are too high, or too low, or too close together, or too far apart, are fruitful causes of malformed spines. Then the custom of sitting for hours, writing with one arm on the desk, tends to induce lateral curvature of the spine, shown by an unevenness in the height of the shoulders when standing. The manner of carrying the books to and from school may induce lateral curvature of the spine. Poor eyesight or poor hearing or both may cause the child instinctively to crane the head forward in an

abnormal position in the attempt to aid the imperfect senses. Astigmatism may cause the child to tilt the head to one side. Such difficulties, of course, could be remedied only by an eye or ear specialist.

The school-teacher should be held as much responsible for the health of the children under his care as for their mental acquisition. He should be as careful to see that they sit properly as that they add or parse properly. He should see to it that they are provided with seats adapted to them, or at least he should let the school board understand their duty in the matter. He should make himself familiar with the correct standing and sitting positions, and not permit any slouching. Then he should know how to give exercises to correct the faulty positions already formed by his pupils.

What About Sex Hygiene?

LAURETTA E. KRESS, M. D.

"EDUCATION comprises more than a knowledge of books. Proper education includes not only mental discipline, but that training which will secure sound morals and correct deportment. In this age of the world, children should have strict watchcare. They should be advised and restrained."—*Christian Education*, p. 33.

This wise instruction opens up this big subject before us. **There is a hygiene of the sexes that needs teaching; but as to its place for being taught, there is some controversy. The proper place for all such education is in the home, at the mother's knee.** This, with so much other good instruction, is sadly neglected, and some of our children just "grow up" without much training at home. This laxness in the mother's instruction makes the work of the teacher in the school doubly hard.

As seen in the foregoing statements, the knowledge from books is not all that must be taught the young. The firm

principles of morality and correct deportment are very essential elements, and in some way must be inculcated in the minds of the youth. That which is neglected in the home must in a measure be supplied in the school. Consequently, the burden falls heavily on the teachers in our schools.

A few years ago the problem of teaching sex hygiene in the schools was much agitated among teachers and educators. In some localities it was carried out in detail by lecture courses given by physicians and nurses. This instruction was given to young women and to young men separately. The good results of these courses of lectures have not been very great. **Teachers and mothers have proved it to be more helpful when given individually than collectively.**

There is a large amount of instruction that should be given by a wise and prudent mother. Fortunate the boy or girl who has such a mother in these days. The souls of the children in our schools

are precious in God's sight. Every teacher who has the guiding of these young minds has an important work, one he cannot undertake, if conscientious, unless his own life is dedicated to God's service. In this frame of mind the teacher can tactfully give some counsel to the boy or girl who is going in the wrong way. Tender, loving instruction, given from a heart that loves the erring one, will often strike a responsive chord and result in his salvation.

It is to be regretted that some teachers take up their work solely for the money there is in it, instead of from a love for the children and a desire to help them. Again, many girls enter motherhood with not the slightest conception of the responsibility that it brings to them. They have never had a proper education; consequently are unprepared to instruct their children. They know very little about self-control. How can they teach it to their little ones? The unfortunate children are the prey of many evils. These are the children that often become a source of trouble in the schools.

The tactful teacher who loves and understands these neglected children, finds a big opportunity to help them. This she does by gaining the confidence of each child, and then quietly and tactfully telling him the things he needs to know.

How We Co-operate with the Sanitarium in Health Building

B. F. MACHLAN

"THERE are decided advantages to be gained by the establishment of a school and a sanitarium in close proximity, that they may be a help one to the other. Instruction regarding this was given to me when we were making decisions about the location of our buildings in Takoma Park."—*Mrs. E. G. White, in "Counsels to Teachers," p. 519.*

Washington Missionary College, through direction of the spirit of prophecy, is located in close proximity to the Washington Sanitarium, and the wisdom of such an arrangement is felt, I believe, by both these institutions. They stand

very close in their relationship to each other, and in the work of developing the youth of the denomination for active service.

The above-mentioned testimony further states that "one institution will give influence and strength to the other; and, too, money can be saved by both institutions, because each can share the advantages of the other." This is proved by the excellent work done by the sanitarium and college in conducting a course in medical evangelistic work. Drawing from the faculty of each institution, we are able to offer a strong course of instruction at a great saving in money, and the graduates from this course greatly appreciate the privileges afforded by this arrangement.

A gymnasium and swimming pool was built by the sanitarium, and the two institutions have co-operated in conducting the work. Much of the time the sanitarium physical director has taught the physical culture classes for the college.

Each year a course of lectures is given to the entire student body of the college by the superintendent of the sanitarium. These lectures are greatly appreciated by both faculty and students, and are a very valuable feature of our college training.

The sanitarium and college together operate a course in Domestic Science and Home Economics. This arrangement gives us a much larger faculty, and enables us to do much stronger work, and the course becomes doubly valuable to the student.

It is the purpose of the college so to co-operate with the sanitarium in every way that the instruction God has given in regard to the value of healthful living, etc., may be properly understood, and that those who are trained in this institution may be given every opportunity to develop into workers of value to the denomination. A spirit of harmony and co-operation is manifest in both institutions, and our college stands side by side with the sanitarium in all that makes for advancement in the cause of truth.

"That Thou Mayest Prosper and Be in Health"

C. L. BENSON

THE apostle John in addressing the early Christian church, actuated by inspiration, said, "I wish above all things that thou mayest prosper and be in health, even as thy soul prospereth."

These words were addressed to conference laborers as well as to lay members. The workers who were traveling over the Roman Empire preaching the gospel in Asia, Europe, and Africa, were away from home a great deal. They had strenuous work and many trying experiences that made demands upon their physical and spiritual strength. They endured privations of all sorts, worked long hours, and had little recreation. If they were to succeed in carrying out the divine program to evangelize the Mediterranean world in their day, they needed to give due attention to nature's laws, or their bodies would not be equal to the great strain of the work assigned to them.

John's admonition, "Prosper and be in health," applies today to men and women who are giving their lives to the advancement of the third angel's message. This divine instruction is of specific as well as general application, irrespective of nationality, race, or climate. The work assigned our conference laborers is taxing in the extreme. Not only must long hours be spent in arduous labor, but the burden of the work rests upon the conscientious workman day and night, three hundred sixty-five days in the year. He is constantly dealing with judgment-bound men and women, and as a watchman on the walls of Zion must sound the trumpet.

Again, he must be away from home a great deal. There is little opportunity for relaxation. Depending much upon the hospitality of others, he is often forced to have irregular habits. These, together with the strenuous age in which we are living, soon cause the body to wear out and nerves to snap, unless proper precautions are taken. Therefore it seems imperative that the workers of

this generation should give serious attention to the words of inspiration, that we should be in health. God has outlined definite laws for the preservation of our health, just the same as he has for the salvation and spiritual growth of our souls. We must conscientiously learn and obey God's gospel of health, if we would be hale, strong, and happy.

We are told in the Corinthian letter that whosoever defiles the temple of God, him shall God destroy. It is possible to defile the temple of God by improper diet, by lack of sleep, and by insufficient exercise, as well as by the use of tobacco, intoxicants, or by indulging in some harmful practice. If we do not eat enough nourishing food to keep the body supplied with physical energy, if we neglect to sleep hours enough to permit nature to do her repair work, if we overwork our nerves, giving no time for relaxation, we are disregarding the fundamental instruction with reference to physical well-being and health, and sooner or later will pay the penalty.

The conditions existing in field work today have in many ways been greatly improved since John's day.

Are we not presumptuous when we disregard the plainest instruction concerning health? Can we expect that God will do for us what we can do for ourselves? When nature wears out and we are compelled to give up work, we often console ourselves with the idea that we have worn out in the service of God. But sometimes a better diagnosis of the case would be, we have knowingly or ignorantly violated nature's laws, and must now pay the price. God will work no miracle to preserve our health under such conditions. Some workers succeed in carrying heavy burdens in the same field from which others are compelled to depart, because they give close heed to physical laws, and are able year after year to carry on their work and enjoy good health all the while.

No Excellence Without Health

M. E. OLSEN

THE Greek ideal of human excellence was expressed in the pregnant phrase, "A sound mind in a sound body." Among the ancients, education was quite as much a matter of training the body in all manly exercises as of imparting knowledge to the mind. The teacher's work was for the growing boy, and it included all there was of him. In those earlier days ignorance was a term applied to something else besides mere illiteracy. "He can neither read nor swim," was the Roman's characterization of a particularly backward boy. It was a culpable thing not to know how to read, but it was equally culpable not to be able to swim — both lacks showed defective education.

Today school life has come to concern itself almost exclusively with the acquiring of book knowledge. Our system of marking grades makes provision only for the recording of intellectual growth. Our examinations consist of questions to be answered on paper; they take no account of the physical condition of the pupil. The growing boy gets one, two, or three in his history class, according as he answers the questions in that certain subject; but nothing is done to inquire into his physical condition, — whether he is breathing correctly, whether his environment is conducive to proper growth and development, whether his teeth and digestive organs are in good working order. Yet these questions may have a larger influence on the future work of that boy than the questions in history.

We need a larger view of education. We need to think of it as an all-round, complete preparation for life. Viewed from this standpoint, the whole subject takes on new beauty and significance, and the teacher's work is seen to have a stronger hold on real life. This view of education also makes demands upon

school boards. The sanitary conditions that prevail, the providing of sufficiently roomy buildings, the insuring of good ventilation, these and a host of other practical matters often call for considerable outlays of money; but when they are seen to be a vital part of the facilities for an all-round education, they will be willingly provided. The important thing is that we should recognize the body as the work of a divine Creator, and the laws governing its welfare deserving of our loyal obedience.

Bracers

1. SLOUCHINESS:

Mental and physical indifference; slackness in thought, in understanding, and in acting; lack of mental alertness and accuracy.

MORAL.— Wake up; take an interest; do the little things especially well.

2. SLOVENLY SPEECH:

Failing to speak in a clear, well-rounded voice; not opening the mouth and using the lips; running the words together.

MORAL.— Speak up; practice getting the words up out of the throat.

3. HESITANCY:

Not thinking clearly and positively; not deciding immediately; "beating about the bush."

MORAL.— Come to the point; don't try to "bluff."

4. SLOUCHY BEARING:

Abandoning the erect position; carelessness in walking.

MORAL.— Heads up; shoulders back; push back on the collar button; hands free.

5. NO GRIT:

Unwilling to take orders or to receive rebuke; not trained to true subordination; no persistence under discouraging conditions; not trained to take the rough edges of life.

MORAL.— Don't be a "quitter."

(Reproduction of a chart used in an officers' training camp.)

College Gymnasium and Swimming Pool

W. I. SMITH

DURING the summer of 1917 a building for gymnasium and swimming pool was constructed at Walla Walla College. The structure is 36 x 60 feet and is built on the two-story plan. The swimming pool is 18 x 50 feet, and nine feet in depth at the deepest point. An inexhaustible supply of water is furnished by the artesian well, at a temperature of 69° F. The swimming pool and dressing-rooms are on the first floor, while the second floor is planned for the various drills and calisthenic exercises.

The water pressure at the surface of the artesian well is about 40 pounds, and

foster a spirit of activity in the association, decided to throw its energies into the project of procuring a gymnasium and swimming pool for Walla Walla College. Plans were devised, and a committee was appointed to canvass the village of College Place and the city of Walla Walla. As the result of the campaign, approximately \$1,600 was secured. Labor was volunteered, and the building was begun in May. It was built at a total cost of \$5,100. During the first year it showed an operating gain of \$350, and it is expected that it will do better this year.

The classes are so organized that the men and women use the building on alternate days. Three periods, of one hour each, from three until six in the afternoon, are set apart for physical education. The class spends the first thirty minutes on the floor under the supervision of the physical director, and the remainder of the period is spent in the pool. A very large percentage of the student body take advantage of the opportunities afforded by the gymnasium, and we have felt much encouraged with the results of the first year. A vigorous hour of directed exercise eliminates in a large measure the physical and mental conditions that give rise to disciplinary troubles, and the reaction from the health standpoint is reflected in the quality of work that is being done by our students. We are in favor of procuring facilities that will add to the mental and physical stamina of our young people.



WALLA WALLA SWIMMING POOL

from the time the well was drilled there had been an increasing demand that advantage be taken of this supply of warm water for the purposes of bathing and swimming. In 1912 the demand called forth definite action on the part of the college administration, but after careful estimates of the cost of such an undertaking, it was felt that the expense would be too great, and the matter was temporarily dropped. Enterprising business men then submitted plans by which they would assume the financial responsibility if given a free hand, but it was felt that this might involve the college in matters of discipline, and their proposition was rejected.

In the opening days of 1917, the collegiate association, while seeking to perpetuate its name and at the same time

“HEALTH is invaluable. It is a war-time necessity. Every one will admit the truth of the above statements. They are not open to dispute. Their truth is everywhere acknowledged, but we do not practice what we preach. We usually need to be spurred on to the performance of duty of this sort. Most of us need a boss.”

Physical Benefits of Industrial Education and Practice

LYNN H. WOOD

THE question of industrial education is demanding the attention of the entire world today. The war has brought about such changes in the affairs of men that every one realizes he must receive an education that will fit him to do the most efficient work in the shortest time.

In the past, men have followed ways of their own choosing in education and life, but the straws point toward a new industrial educational development as soon as this war is over. France and Belgium at the present time are building great reclamation schools, in which they take wounded soldiers, many of whom could not read or write when they entered the school, and are fitting them for some practical service in life. They report astonishing progress on the part of all the students, and with \$10,000 worth of equipment they are turning out \$25,000 worth of work per month.

We have been told that this education should be placed in our schools. Now the world is recognizing the value of it, and it is high time that we give serious attention to this question. In the Southern Junior College at Ooltewah, Tenn., we are finding that industrial education and practice brings a great physical blessing to the students. We have had several students who had never worked before, and when they first started in the various lines of work around the place, they felt it was too hard for them; but after a few days they began to change their minds, and later to sense a keen pleasure in raising crops and erecting buildings.

The youth of today, when they see development all around them in the world, naturally want to do something, and the very best development they can get is by this very thing. One of the students said to me not long ago, "An institution becomes a part of you just in proportion as you give yourself to its upbuilding." We are adopting the policy that the institution will be put up so far as possible with student and teacher help alone, and

while sometimes it goes a little more slowly than it might with another plan, yet there is a blessing in it, which brings the heart of the student close to the heart of the school.

There is a special benefit derived from the proper combination of healthful work, study, and spiritual development. The school that can properly relate these three is doing a great service to mankind.

Teachers' Reading Course

(To begin October 1)

REQUIRED	PRICE
"Teaching the Common Branches," by Charters	\$1.50
CHRISTIAN EDUCATOR	1.00
SELECT TWO	
"Training for Efficiency," by Marden	1.25
"Soul Winning," by Thompson75
"The Science and the Art of Teaching," by La Rue	1.20
"The Manual Arts," by Bennett	1.00
CLUB RATES	
Teaching the Common Branches, EDUCATOR	2.45
Teaching, EDUCATOR, Science, Training	4.70
Teaching, EDUCATOR, Science, Manual	4.60
Teaching, EDUCATOR, Science, Soul Winning	4.20
Teaching, EDUCATOR, Training, Manual	4.50
Teaching, EDUCATOR, Training, Soul Winning	4.10
Teaching, EDUCATOR, Manual, Soul Winning	4.00

How to Keep in Physical Trim

(Continued from page 45)

These daily exercises will build up a strong constitution, and lay the foundation for robust health. They will drive off colds, prevent backaches, forestall ruptures, and dispel many nervous and physical disorders.

It is not physical work, or pulling weights, or swinging dumb-bells and Indian clubs, that produces efficacious results, so much as tensivity of muscular movements well directed. Every muscle in the body needs a daily, harmonious, symmetrical development by a well-balanced exercise. In such exercises, all danger of straining, of overbalance and overexhaustion, is eliminated, and the benefits alone accrue. You who do not feel that you can carry out this program are the very ones who need it.

THE NORMAL

JESUS AS A TEACHER

"What he taught, he lived. 'I have given you an example,' he said to his disciples, 'that ye should do as I have done.' Thus in his life Christ's words had perfect illustration and support. And more than this: what he taught, he was. His words were the expression, not only of his own life experience, but of his own character. Not only did he teach the truth, but he was the truth. It was this that gave his teaching power."—*Education.*

TEACHING NOTES—GRADE BY GRADE

FIRST GRADE—Anna A. Pierce

Paper Cutting and Pasting.—From colored paper cut different kinds of fruit. Mass these together in a basket, then paste on cardboard. A handle can be attached to the basket. If you cannot get the colors in paper, let the pupils color their fruits with crayola or water colors.

SECOND GRADE—Rose E. Herr

Nature.—This month you will probably be presenting the stories about plants; the sun, moon, and stars; and air and water animals.

A few interesting and successful devices which we worked out in connection with these nature subjects may prove helpful to you. One of the most lasting and beneficial results of school training to the boy or girl is for him to acquire the habit of observing what is around him.

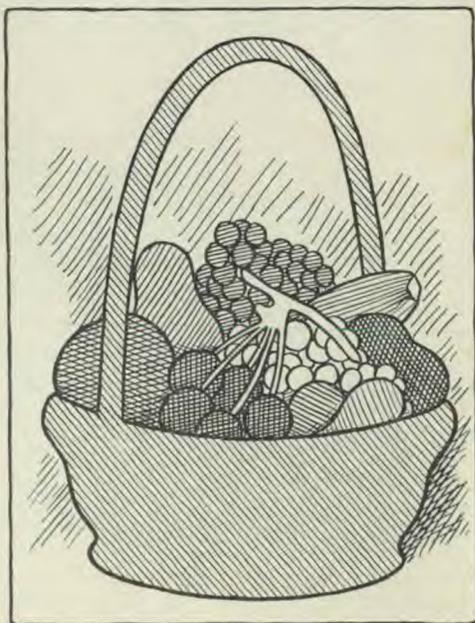
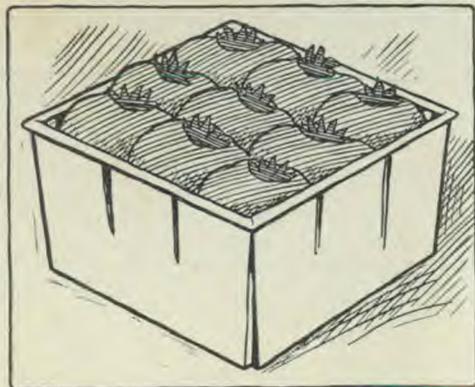
To encourage this habit, request the pupils to watch on the way to and from school, for something they consider beautiful, and to report it the next day. When we were studying seeds, the pupils were asked to secure the most beautiful seeds they could find and bring them to

the school. The seeds were placed where every one might go to look at them some time during school hours. Supplementing this collection were the beautiful and curious seed pods secured by the teacher during the summer and fall for this very purpose.

The same plan may be worked out with leaves, flowers, stems, roots, minerals, woods, shells, etc.

When the trees put on their festive autumn colors, make a collection of the prettiest branches. If this is done early, the leaves will cling fast to the branch all winter, giving brightness and cheer when it is too cold to keep living plants.

Last year we had a beautiful nature corner where the children loved to stand and admire



some new thing that had been added after school the day before.

We began with a maple branch that was brought as a tribute of love by a small boy. This was fastened in an upright position to a large pipe in the corner. Later some one brought a bunch of purple asters and goldenrod from the woods. The petals dried, but retained their colors for many weeks. We fastened these below the branch.

Then we became intensely interested in birds and their nests. As a result, we made a collection of nests. When possible, the nests were brought on the twigs or branches where they were found. We arranged a little sand-table on the floor, and "planted" our trees in the sand. The nests were placed as naturally as possible, according to their kind. Cat-tails made an ideal place for the blackbird's nest.

One of these nests found in a peach tree near a farmhouse became the subject for a story on the protection of birds from their enemies.

In the nest was the skeleton of a half-grown bird that evidently had starved to death while waiting day after day for its mother to return with food. Some prowling cat, or possibly some boy who wanted to try his sling shot, had killed the mother.

The interest in caring for these helpless friends of ours grew in the hearts of the boys and girls as we studied and watched.

We secured colored Perry pictures of twenty of our most common birds. These pictures made an attractive border at the top of the board around our nature corner. By spring several pupils were able to name every bird without referring to the written list of names. This nature corner became the attraction, not only of the primary room, but of pupils from the higher grades.

THIRD GRADE — Hazel Gordon

"I wonder, oh, I wonder
Where the little faces go,
That come and smile and stay awhile
And pass like flakes of snow."

Sometimes I watch the children from my schoolroom window shuffling along among the falling leaves. The teacher must look after their health. He must see that they have clean teeth; that they are neat and tidy; that they cultivate a gentle, refined manner. Often have heart-to-heart chats with your boys and girls about these things. Observe their hands, faces, and teeth. A smile or an encouraging word helps them to keep neat and tidy. Have dramatic lessons on good form. Permit one boy to come into the room with a cross face, wearing his hat, and failing to greet the teacher. Let another boy enter with a cheery "Good morning" as he removes his hat. No words are needed; the lesson usually goes straight home.

Arithmetic.—Drill is the key to teaching arithmetic. Two examples may prove helpful.

1. Use flash cards. As the card is flashed, a pupil gives the answer and takes his place at the side of the room. When the whole class is standing, write a number on the board, say eighteen; then look at the first child in the line and say, "I say eight;" the child answers, "I say ten," because eight and ten are eighteen; then he passes to his seat. Repeat until the class is seated. The motion is restful to the class and it can be made lively and interesting.

2. If the day is cold, draw some blue water on the board with brown stones in it. On each stone write a combination. As you do so, remark, "This is a cold day, and I don't believe any of us want a bath in this brook; so let us be careful we don't slip on any of the stones." Then the children begin to step across the stones by giving the answers to the combinations. Write the initials of all who get safely across on the other side of the brook, but place the names of those who slip in the water at the place where they failed. Some one who has gone safely across may return and rescue one who has fallen in and once more give him a chance to step across. If you just make believe you are playing with the children, they will know it and interest will lag; but if you play energetically, every one will have a good time and interest will be at white heat.

FOURTH GRADE — Sydney Bacchus

Reading.—Maps should be used with a number of the lessons this month. Children love to find the places about which they are reading. Sometimes question them to see that the pupils are grasping the thought before leaving the lesson. Let the children ask each other questions about the lesson. Pupils should prepare their reading lesson with a dictionary at hand. Make this a habit in your school. Try to overcome the habit of "lip-reading" during the study period.

Language.—Several biographies are to be written this month. But do not assign too much written work. Fewer papers well prepared are better than a large number carelessly written. Many children read their own compositions very poorly. Attention should be given to correct expression, the same as in the reading period. Have the children tell some of the stories. This will give them drill in oral expression. Appoint one member of the class to act as policeman to note the mistakes in language made by the class. They are anxious to avoid "being caught." So far as possible let the children correct their own mistakes in written work. The corrections may be marked in the margin.

Assign some blackboard lessons appropriate for the season. The story of Hiawatha is good for this month. Parts of it may be dramatized.

Spelling.—Be sure that you *teach* spelling, and not simply make the assignment. Booklets in the shape of an ear of corn or a squirrel may be used for October. Have these nicely colored.

Arithmetic.—Continue oral drills in addition and subtraction. The flash cards are always good.

In teaching subtraction, considerable time will need to be spent on problems in which the pupil has to "borrow." Make this very clear. Do not allow pupils to mark through their work. Give much board work, and require pupils to check all problems. Assign practical problems. For subtraction reviews permit the pupils to play "bank."

Bible.—A large map will be useful in connection with the lessons this month. Have a large one drawn on the board and the places filled in as they are studied. If you are crowded for blackboard space, a permanent map may be made on cloth.

Make the lessons real to the child. Right principles learned now mean much in his later life. Do not forget to give frequent reviews on the memory verses.

Nature.—The sand-table may be used this month to show the various land and water forms studied. These may also be worked out on a larger scale in the school yard. Miniature islands, capes, etc., may be observed in the country about your school. As the beautiful fall days come, much outside the textbook may be taught. Let the children keep a weather chart.

We have not really taught this subject until we have trained the children to *see* and enjoy the beauties of nature about them.

FIFTH GRADE — C. L. Benson

Language.—Put forth every effort to correct grammatical errors and to fix right forms by imitation and drill. Make a careful study of the prominent grammatical mistakes made by persons in your locality. Distribute among the pupils slips containing the most common errors for correction. Hold the pupils rigidly to account for the forms that have been studied and mastered.

Reading.—"What has been the hardest thing about learning to read?" was asked of a fifth-grade boy who was just beginning to show some self-confidence in his reading. "Well, you see my second-grade teacher used to say things, and I've always been afraid, when I've tried to read, that my teacher would say things." Use tact in teaching reading. Seek to arouse joy in the stories read, and in each triumph shown in mastering difficult lessons.

Use supplementary readers; thus you avoid the danger that pupils will become mere word-callers. Study the motive for a lesson. This directs the energies of the student to things

worth while. Seek and discuss the related ideas. Draw out the meaning of the lesson. Why the illustration? Train pupils to see them. Help them to find the natural divisions of a story. Have them pick out the characters or events that are essential. Discussion should generally center upon these.

Do not have cut-and-dried reading lessons. Try a variety of methods. Dramatize the lesson occasionally. Develop initiative in your pupils. Encourage your pupils to ask questions and pass judgment. Guidance is always needed to prevent disorder.

Utilize the experiences of your pupils. Seek for opportunities to relate the reading material to their interests. Help the pupil to regard his books as companions.

Spelling.—Review the words taught yesterday, as you teach today's lesson. Review last week's assignments with those of this week. Learning to spell is a matter of habit. The pupil should get a clear picture of the word, pronounce and write it, then repeat the spelling. The spelling must be made automatic, or all the labor is lost.

SIXTH GRADE — Sara K. Rudolph

Bible.—While studying the prophecies concerning the first advent of Jesus, impress upon the children's minds that these are all given in the Old Testament and were written several hundred years before Christ came. Show that the texts which teach the second coming of Christ are just as plain and true. Teach your pupils that God in his wisdom knew what would happen years before it came to pass. Place the diagram of the 2300 days on the board, and drill the children on it until they have it well learned. Outline the life of Christ as the lessons are studied. The pupils will be interested in making books on the life of Christ, using only illustrations, or writing the story and illustrating it.

Geography.—This month we study the Western Hemisphere. Do thorough work, especially in the study of the geography of our own nation. Dissected maps of the United States will be excellent help to the pupil in learning the location of the States. Every child should be able to name and spell correctly the names of the States, their capitals, and one important city in each State. Emphasize the relation between the location and industries of the largest cities. Elementary histories of the United States may be used for supplementary reading. These books may be read by the pupils when their lessons are completed. This will help to keep the school orderly. The names, capitals, and principal cities of the other political divisions of this hemisphere should be learned. (For map work, see sixth-grade Nature in *CHRISTIAN EDUCATOR* for September.)

CONTINENT

1. Position:
 - a. As to equator.
 - b. As to other continents.
 - c. As to surrounding waters.
2. Size: Relative; absolute.
3. Coast: Projections; indentations.
4. Surface: Highlands; lowlands.
5. Drainage.
6. Winds and ocean currents.
7. Climate.
8. Soil.
9. Minerals.
10. Life: Animal; vegetable; human.

COUNTRY

- | | |
|------------------------------|--------------------------|
| 1. Position in continent. | 13. People. |
| 2. Boundaries. | 14. Race. |
| 3. Size. | 15. Religion. |
| 4. Coast. | 16. Occupation. |
| 5. Surface. | 17. Education. |
| 6. Winds and ocean currents. | 18. Character. |
| 7. Drainage. | 19. Manners and customs. |
| 8. Climate. | 20. Government. |
| 9. Soil. | 21. Capital. |
| 10. Minerals. | 22. Commerce. |
| 11. Animals. | 23. Railways. |
| 12. Vegetation. | 24. Exports. |
| | 25. Imports. |
| | 26. Commercial cities. |

Language.—Review the work given last month. The subject is not always first in the sentence. It is often moved out of its usual order for the sake of emphasis. In order to determine the subject, arrange the sentence in its natural order. Have the children find the subjects and analyze the sentences. Material can be found in the Reader on pages 113 and 258. After the class is able to recognize the subject and predicate readily, take up the study of apposition, as found on pages 86, 228, 332, of the Reader. Explain the meaning of "apposition," "restrictive," "nonrestrictive," and "phrase." Give examples of each kind of apposition. Examine the punctuation. Use the exercises given in the Reader, and have the pupils look for examples in other lessons, or let them write original ones. During the third week study compound subject and predicate. See the Reader, pages 118, 85, 86. At the close of the month review the work covered. For composition work have the children write a description of a room in their home, or a place they have seen.

Arithmetic.—As you complete the study of fractions, drill your pupils on the fundamental processes. With many, fractions are difficult. In the assignment of the new lesson, discuss the proper way to work the problems, and insist upon the children's working them by the method you teach. Decimals, too, are studied this month. Be sure the children can read them

easily before starting to work the problems. In our work let us keep in mind that it is not how much we do, but how well we do it.

SEVENTH GRADE—C. L. Benson

Geography.—The study of types is very essential in this subject. A city, country, mountain, or trade route may be taken as a type. McMurray thinks that Minneapolis and St. Paul are excellent types for tracing development from simple beginnings to a great lumber and flour center. The location at the falls, the nature of the surrounding country, a full description of the river, the timber above, the nature of the soil, its adaptation to wheat, sawmills producing lumber, the building of houses, the coming of settlers to grow the wheat, the beginnings of mills to grind the wheat into flour,—all these enter into a graphic presentation of these cities as trade centers.

North America may be studied as a type continent. "That portion of the world ridge which runs through the continent is its backbone. There is a long slope running toward the Atlantic, and a shorter slope toward the Pacific. Each slope is broken in places by lower ranges of mountains; there are river systems of each slope and counter-slope, making valleys and lowlands, and there are inland water basins. There are regions inclined to be desert and barren, with natural causes to explain their existence. The general shape of the continent is triangular, with characteristic features of each shore."—*Woolfer, in "Teaching in Rural Schools," p. 243.*

EIGHTH GRADE—C. L. Benson

Reading.—Instruct the pupil to read in a natural voice, just as he would talk. If he keeps his audience in mind, he will adapt his voice accordingly. If he reads in a loud voice, say to him, "Not so loud, please. Read to me here beside you." If the pupil reads too low, the teacher may stand in the rear of the room, and have the pupil read to him. When you desire better expression, go over the selection with the reader, so that he will feel its spirit.

Memorizing Poems.—It is well to have pupils memorize carefully selected poems. Teach them how to do this, not "bit by bit" or sentence by sentence, but as a whole. Help them to grasp the main ideas in their proper sequence. First let the class enjoy the poem, have it read aloud several times with expression, talk it over and clearly understand it. Attention to organization is a large factor in memorizing. Comparisons are valuable aids in establishing thought connections.

Spelling.—The final test of spelling is found in written work. But you can get some idea of how well the class can spell by using a spelling test. The most useful for ordinary

(Continued on page 62)

HOME EDUCATION

Fathers and Mothers, you can be educators in your own homes.—Mrs. E. G. White.

Nature Month by Month

C. L. BENSON

The Star

"TWINKLE, twinkle, little star:
How I wonder what you are,
Up above the world so high,
Like a diamond in the sky!

"When the glorious sun is set,
When the grass with dew is wet,
Then you show your little light,
Twinkle, twinkle, all the night."

October

The Heavens and Sky.—Children of all ages may be interested in the heavens. During the summer months the days were long. Bedtime came for the little folks before the stars appeared. But now the days are shorter, and the boys and girls can see the sun set in all its glory. They can watch the stars silently appear one by one, until the entire heavens are full of tiny lights. Take the little one on your knee and tell him the story of creation. Explain the purpose of the sun, moon, and stars. Call to his attention God's promise to Abraham, as he viewed the starry heavens. Tell the story of the star at Bethlehem. In this way the child acquires knowledge. His mind is focused upon nature and God's handiwork. Ever after, as the child views the heavens, he will think of the Bible stories he learned at his mother's knee.

The Animal Kingdom.—All children love pets. The bird, dog, cat, or lamb becomes very dear to the child. The old saying has special application here, "Love me, love my dog." Take advantage of the boy's fondness for his dog to teach him to observe. Study the dog's feet, their shape and structure. Note his ability to steal up on his prey quietly. Notice the claws, their number, their shape, and the different uses the dog makes of them when running, digging out a rabbit, or protecting himself. Look at the limbs and compare their shape. Draw any lessons that occur to

you. Study the dog's teeth, hair, ears, eyes, and nose. Have the child tell of his habits. A comparison of different kinds of dogs is interesting. A chicken, rabbit, or squirrel forms an interesting and practical study.

The Vegetable Kingdom.—Children naturally have a scientific turn of mind. They like to investigate, and learn the why and wherefore. The child digs up a plant to see if the roots are growing. The boy takes the clock or toy to pieces to learn how it is made. He has an intense desire to follow the rabbit or coon tracks in the snow or mud to learn where they go. He watches the bird carry grass, strings, or worms, and thus learns where its nest is. The parent can take advantage of the child's inquisitive disposition to awaken his interest in the various home activities, and to enlist his intelligent co-operation in performing the necessary work of the home.

As you harvest and store away the vegetables, fruits, grain, and flower bulbs, have the child with you. It may take a little more time, but in the long run you will gain a hundredfold. You attach the child to you. You gain and hold his confidence. By answering his questions, you store his mind with useful information. Even though he is more of a hindrance than help just now, he likes to be a "part of the concern." He will in this way be attached to the home and will form useful habits of industry.

Interest the child in beautifying the yard. Get him to help you set out trees

and shrubs. Encourage him to talk about his work. Give him all the information you can. In case he asks questions that you cannot answer, go to an encyclopedia and learn the answer. In this way parents live with their children, and the child does not desire to run the streets and seek companionship elsewhere, because he and his parents are chums.

Teaching Notes — Grade by Grade

(Continued from page 60)

school purposes is the Ayres Spelling Scale. This consists of one thousand of the most common words collected from business and personal letters. The words are arranged by groups and grades. The Ayres Spelling Scale can be obtained by sending five cents to the Russel Sage Foundation, New York City. Every teacher should have a copy.

History.— Do not place the emphasis in history on facts, dates, or events, but focus it upon the real essence in cause and effect.

Biographies should be frequently read, also interesting stories of leading events, such as the voyage of Columbus, the Boston Tea Party, the Battle of Lexington, the Declaration of Independence, etc.

Pictures should be freely used, as "Three

Ships of Columbus," "Pocahontas Saving the Life of Captain John Smith." These can be collected from magazines, or secured from the Perry Picture Company, Malden, Mass.

Maps and the blackboard are indispensable. Stress the geographical influence.

Frequent reviews are helpful. These may be given in many ways: (1) Chronological, (2) Biographical, (3) Geographical, (4) Topical.

One teacher used successfully the following method:

"As to examinations, we never have one in history that is purely a memory exercise. They generally consist of three parts: First, a few facts that every one should know are called for; second, there are two or three questions that require discussion in which is shown the quality of thinking a pupil has been doing in history; third, the written papers are collected and pupils are allowed to consult their textbooks in answering the remaining questions of the examination. This is a test of their ability to use books.

"Thus we aim to have the examinations measure the results we have been trying to secure. Evidences that a pupil is interested in history, that he has read more than he was required to, that he has been doing more than superficial thinking, count more than his ability to recall what the book gives. For such examinations as these, no special preparation can be made."

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