

CHRISTIAN EDUCATOR

A MAGAZINE FOR HOME AND SCHOOL

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Washington, D. C.



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For Particulars Address the President of

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Berrien Springs, Michigan

The Gospel of Labor

HEWING wood and drawing water, splitting stones and cleaving sod —
All the dusty ranks of labor, in the regiment of God,
March together toward his triumph, do the task his hands prepare:
Honest toil is holy service; faithful work is praise and prayer.

"Where the many toil together, there am I among my own;
Where the tired workman sleepeth, there am I with him alone.
I, the peace that passeth knowledge, dwell amid the daily strife;
I, the bread of heaven, am broken in the sacrament of life."

And courage will come with His presence, and patience return at his touch;
And manifold sins be forgiven to those who love him much;
And the cries of envy and anger will change to the songs of cheer,
For the toiling age will forget its rage when the Prince of Peace draws near.

This is the gospel of labor,— ring it, ye bells of the kirk,—
The Lord of Love came down from above, to live with the men who work.
This is the rose that he planted, here in the thorn-cursed soil —
Heaven is blest with perfect rest, but the blessing of earth is toil.—

— From "The Toiling of Felix," by Henry Van Dyke.

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FIRST EXHIBIT OF GRAND ISLAND (NEBR.) CHURCH SCHOOL, DECEMBER, 1917



SECOND EXHIBIT OF THE SAME SCHOOL, MAY, 1918

Products of Manumetal Enterprise in a Prairie School Taught by Mary R. Welch, Normal Graduate of Union College in 1916.

CHRISTIAN EDUCATOR

W. E. HOWELL, Editor

C. L. BENSON, Associate Editor

VOL. X

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

No. 3

Learning and Doing

LEARNING, and learning to do, are two different things.

Learning is essential to well doing, and doing is essential to the perfection of learning.

One of the very best ways of learning is by doing, and the effort to do one's best always improves both the doing and the learning.

The Bible tells us that "knowledge puffeth up," or as one version puts it, "knowledge breeds conceit."

If anything will take the conceit out of a person who has mere knowledge, it is the effort to do something practical that he never tried to do before. The slightest emergency requiring something to be done quickly, floors him and puts him to an open shame.

If anything will give confidence to a boy or girl who is slow to learn, it is to find out that he can really do something with his hands. The doing arouses in him latent ability that he never knew he had. More than this, it actually stimulates his ability to learn, and life, especially school life, takes on a new complexion.

After all, what is true education but the restoration of the image of God in the soul, and the clearing of the King's highway for action?

It was charged against Christ that he "never learned," yet he spake as "never man spake," and did as never man did.

Luke sums up the mission of Christ in the simple phrase, "both to do and teach." Who can characterize the work of the teacher today better than to say it is "to do and teach, and to teach how to do;" or the true work of the student than to say, it is "to do and learn, and to learn how to do"?

DOING AND LEARNING

LETTER FROM AN ENTERPRISING TEACHER

DEAR EDITOR:

I am inclosing the article you asked for in the form of a letter. I am sorry not to be able to give you the information you desire on domestic science, but I have never carried this kind of work in the school as yet.

In our little school two years ago we decided to correlate our manumetal training with that of our Junior Missionary Volunteer Society. The models made during the manual training periods were sold and the proceeds divided, half going for the boys' school in China and half for the equipment of our own school.

Our first exhibit brought us fifteen dollars. Half of this was sent to the conference. The other seven and one-half dollars paid for a new water jar, a thermometer, several yards of burlap, and eleven yards of slated cloth for blackboards. The burlap was fastened to the wall where it was inconvenient to have blackboards, and furnished a very neat place for exhibiting the work done by the school. The parents became very much interested in the work of the school, and in many ways showed a spirit of co-operation.

The Lord so richly blessed in our first year's work, and our faith so increased, that we were ready to attempt greater things the second year. Our school had grown, and we were in great need of new desks. The members of the church were doing all they could toward repairing and reseating the church, so the children decided to earn their own desks.

Before Christmas time the school completed fifteen quilts, thirteen of which had pieced tops. Besides these, there were toys, holders, towels, crocheted yokes, doilies, and other things. The exhibit brought us about one hundred dollars. Before the close of the school year the school had made more than enough to finish paying for twenty new Moulthrop chair desks, which cost us one hundred thirty dollars.

I am convinced that if we as teachers will "expect great things from God and attempt great things for God," he will see that our schoolrooms have the needed equipment, and the children will at the same time be receiving a practical education.

Yours in the Master's service,

[Signed] MARY R. WELCH.

Our Sentiments

TWO things are good for editors—and for all others: harsh *criticism* and generous *praise*.

Criticism makes you say to yourself, "There must be *something* wrong with me, or I wouldn't get this kind of letter. I must see about it."

The letter of friendly praise makes you say, "Of course there are *many* things wrong about me and my paper, but they are not hopelessly wrong, if this kind of man writes me this kind of letter."

We sincerely tell our readers that while we appreciate friendly letters, and find encouragement for hard work in them, we have sense enough to know that the other kind of letter, the letter criticizing and offering reasons, is what the editor really needs.—*Editorial in Washington Times*.

EDITORIALS

What Is Industrial Education ?

WHEN we use the term "industrial education," we are talking primarily about education. The word "industrial" merely qualifies the kind of education.

Because of the very practical nature of the trades, there is a continual conflict between the educational and the merely occupational phases of this work, as to which shall dominate. There is a constant temptation to have our students do manual labor merely for the sake of getting the work done. While there is an element of good education in getting practical results, yet the school must keep constantly in mind the farther-reaching aim of "always teaching *how* the work can be best done to get the most effective results. This implies the necessity of going behind the mere work in hand, and studying thoroughly the foundation principles of the trade, the skilful use of tools, and all the whys and wherefores that go to make up thoroughness and dispatch in securing high-grade results. Theory must be combined with practice in order to make the learner broadly intelligent, and to give him a start while in school that will enable him to go on afterward and develop his trade toward perfection, just the same as we acquaint him with the sources of library and other knowledge so that he can go on in independent study after he leaves school.

In fact, the aim of all education is to give the student a start in all the practical and cultural things that enrich life and make it fruitful. If we can set him on the right road while he is in school, he can travel on alone toward his own goal. We must follow the principle of making the young man or woman an independent thinker and worker in his trade as well as in any other study in the curriculum.

The best single word to describe the work we want to do in industrial education, is "manumetal." This means that the training of the hand and of the mind should go together. The youth who works without thinking is unprofitable, and the youth who thinks without working is unfit for the practical responsibilities of life. If we keep the word and the idea of manumetal in mind, it will help us to avoid divorcing thought and labor, education and mere work.

If we are going to have industrial education, we must emphatically have educational industry.

Manumetal Aims in Education

IN short, our aims in manumetal education are four: (1) To teach a trade; (2) to benefit the health; (3) to aid students on their expenses; (4) to supply an indispensable element in true education. Let us consider these aims.

1. To Teach a Trade.—From the time we began to think about and organize our own schools, the ideal has been before us of teaching every boy and girl in our schools a trade, by which, if necessary, he can earn a living. The spirit of prophecy has made it clear to us that such a training should be given to every student, regardless of whether he feels any economic need of it or not. The teaching of a trade to every youth was a part of the matchless Hebrew economy given by the Lord himself to ancient Israel, and frequently repeated to modern Israel. We cannot improve upon it. No youth, whether in poverty or in wealth today, can possibly foresee to what economic needs the exigencies of life may sometime bring him. It is a responsibility we cannot escape as educators to put every youth on vantage ground.

2. To Benefit the Health.—Physical labor was appointed to man and woman in the beginning, not as a curse, but as a

blessing. One of the prime elements in the blessing is the benefit of manual labor to physical health. Man is not all brain, nor intended to be. He has hands and feet for other purposes than merely to walk and to feed himself. There is no mechanism in the universe so well adapted to handle all kinds of tools and do every variety of labor as the human hand. We must develop its skill.

Now if the student or teacher in school or the editor or business man at his desk, does merely brain work, he inevitably goes to seed mentally, loses touch with practical life, degenerates into a book-worm or a hack writer, breaks down physically, and goes to his last sleep prematurely at the end of a fruitless life. If the hard student or the industrious desk man will spend one third of his waking hours in vigorous, physical labor, he will accomplish more and better mental work by far in the other two thirds than if he spends all his time bent over his books or other sedentary tasks.

3. To Aid Students on Expense.—That student is fortunate who is compelled to work for part of his expenses while he is at school. The largest educational centers among us, like Yale and Harvard, testify that the students who earn part or all their way while at school, become, as a rule, the most substantial element in the student body, morally, physically, mentally, and socially. They must think for themselves, they get the physical benefits of work, and they maintain a practical touch with life.

We owe a duty to our young people to provide them with manumetal labor for the double purpose of assisting them on their expenses and of making more substantial people of them.

4. An Element in True Education.—We profess to be giving our boys and girls a true education. If we neglect to give them instruction and practice in a trade, we are giving them a lame education. The educative values of manumetal training can scarcely be overstated. If rightly conducted, it develops patience, accuracy, thoroughness, reliabil-

ity, responsibility, initiative, sympathy with the common people, independence, a knack for doing things, and contributes vitally to mental, physical, spiritual, and social culture.

Who can refute the proposition that these four aims place manumetal education on as high a pedestal as any other element in true education, and make it imperative upon us as educators, not only to provide the means, but to require every student who registers in our schools to include the manumetal in his program and in his attainments?

Credits for Manumetal Subjects

If the manumetal is worthy of being made a prime part of the curriculum in true education, it is worthy of graduation credit. By graduation credit, as here used, we do not mean adding it to the general requirement of education, but including it within the minimum on which we graduate students at all.

After forty-four years of denominational school experiences, we have progressed so far(?) as to add two manumetal units to the requirement for graduation in our academies, and this above the standard 16 units generally employed. That is, we consider the traditional subjects of the secondary school too precious to yield one eighth to what we regard fundamental in the rounding out of true education.

Again, we have gone so far(?) in our college course as to add 8 hours of manumetal work to the general minimum required for graduation, on the same basis as we have done in the academy. That is, a college assumes half the amount of responsibility in giving a manumetal education that the academy does. And this, too, when, in addition to making the manumetal an element in the true education of every young man and woman, we are depending solely on the colleges to educate and train teachers manumentally for our thirty academies. Our academies make the industrial feature of their work strong, or are supposed to. To man

these thirty academies requires the employment of about 340 teachers with a right understanding of the place of manual labor in Christian education and with a zeal to do their part in giving it.

Is it not, therefore, incumbent on us to give a larger, more real, place to manual work in the college curriculum, and organize a distinct manual course for the special training of teachers in this line?

Emphasize the Fundamental Trades

While it is not desirable to limit our manual education to prescribed occupations or vocations, it is very important to give first place to what we might call the fundamental trades. For the purposes of our work these may be said to be: Agriculture and gardening, carpentry and cabinetmaking (primarily for boys); cooking and sewing (primarily for girls); printing (for both boys and girls). In putting it this way, however, we do not by any means imply that girls should not take gardening and woodwork, nor that boys should not take at least cooking, for these are recognized as valid in our instructions, and in some cases are most desirable. In the main, these five trades seem to us fundamental for both missionary and general purposes, and divided between the boys and girls as above.

Let our academies and colleges see to it that these five indispensable callings for a high grade of practical living, be provided for adequately in both facilities and teachers, at the earliest possible date. We have played at manual education too long, and have lost years of precious time. There is not the slightest doubt that if we address ourselves to the task of developing manual education with the same earnestness that we have and do other phases of true education, we shall meet with equal success. The world about us and the schools in the world are outstripping us, when we have had definite instruction and authority for well-nigh a generation that would have put us in the van if we had had faith and the necessary courage.

Thank the Lord, it is not yet too late to mend our ways, and it is high time that we were up and doing.

Home Economics

THERE is no phase of our education for girls so sadly in need of better organization, better facilities, and better instruction, than are the subjects embraced in the term "home economics." This should be one of the mountain peaks in the girl's curriculum. Up to date, it has scarcely attained any higher dignity than that of something "good to take," or that "every girl ought to have," but is not required of every girl, nor is it given graduation credit within the minimum; and it is scarcely born yet in the means of teaching it efficiently.

Our girls themselves are awakening to the need of this kind of education. How could it be otherwise in this time when so much is being done to raise home life to a higher plane, and when our girls can see the older sisters of their sex attaining places of efficiency and distinction in various aspects of household science and management?

We are glad indeed to note that some of our girls are beginning to demand of our colleges the instruction they richly deserve in home economics. One of their first inquiries is naturally, How much credit do you give for it in the course? The answer too often must be, "Oh, we don't give credit for it on a college course, but it is something every girl ought to have, and you will go through life crippled in both private and public efficiency if you do not have it." What a travesty on education!

Not long ago it was exceedingly gratifying to us to learn of some girls in one of our colleges who had the courage to say that they did not purpose to take studies not regarded worthy of credit in that school, but that they knew of colleges where they could go in which home economics is accorded equal credit with literary and other traditional subjects. All honor to these girls for their rebuke and for teaching us what we ought to do!

Manumental Education for the Ministry

Do those who are preparing to preach need the manumental element in their education? Common sense says so, experience says so, the spirit of prophecy says so, and now comes John D. Rockefeller, Jr., ardent Baptist layman and Bible teacher, and would-be founder of a new and living church, who says so. In his outline of essentials to the development of what he suggests calling "The Church of the Living God," is the following remarkable paragraph on the preparation of its ministry:

"Its ministers would be trained not only in the seminary, but quite as much in life, with the supreme emphasis on life. For it would be an important part of the preparation of each that he should spend months, years possibly, working with his hands in the fields or the shops, doing business in the store or office, so that he might not have merely a laboratory acquaintance with the problems of human life, but the practical knowledge which alone comes from actual experience and contact with them.

"Yes, the ministry of this church would live in vital touch with humanity; it would understand and sympathize with human difficulties, and would exert its influence as much in living as in preaching."

Aside from the economic value of knowing a trade, who could express better the vital need of a preacher's touch with the practical things of life, of the great advantage it gives him in ministering to the soul, and therefore the imperative need of this kind of training in his preparation? What folly to leave out of the preacher's education that element to which our Lord himself gave so much time during the first thirty years of his life on earth! Let it not be thought or said that Jesus worked at the carpenter's trade from the mere accident of its being his father's occupation. If it had not been carpentry it would have been something else equally practical and equally indispensable to a sympathetic understanding and touch with the common people in the daily round of life.

Yes, verily, the preacher, if he wants to be more than a speech maker, more than a theologian, more than an ex-

pounder of morals—if he really wants to be a soul-winner, ought to have, as Mr. Rockefeller says, such a preparation for his calling as would enable him to live in vital touch with humanity, and exert as great an influence in living as in preaching. What can help him more during the period of his education than the learning of a trade?

True Education

TRUE education has several outstanding merits. It is simple, practical, comprehensive, far-reaching in results.

These various merits are often summarized essentially as physical, mental, and spiritual. If we add the social to these three, we have four legs on which to stand firmly and immovably.

It is no use to talk of education at all without including these four vital elements. In the course of their natural development we have put them in the right order: physical, mental, spiritual, social.

In his being, man is first physical. Born of the flesh, his is first of all a physical legacy. He breathes, moves, voices his feelings, takes food, and performs essentially all the physical functions that he does in adult life. Physical growth begins at once, and continues until he reaches maturity.

Though a child is first physical, his mind very soon begins to assert itself in the form of intelligence. He takes notice of what goes on about him, and soon begins to develop a thoughtful look in his eyes and countenance generally. He selects what he prefers, rejects what he does not like. He early begins to have an aim in its simple forms, and to work toward it. He thinks, and in thinking and in acting in harmony with his thought, he develops a marked distinction between himself and other animate beings. He not only thinks, but he is susceptible of being taught. In other words, he learns in response to a positive effort to guide his thinking, and as he thus learns, he thinks more and more for

(Concluded on page 92)

Two Fundamentals for Boys

Agriculture and Carpentry

Study and Practice of Agriculture

SYDNEY SMITH

THE value of the study of any subject offered in school, should be determined by its value to the student in preparation for his life work, "The Gospel to All the World in This Generation," and this value must be determined by its mental, moral, physical, and economic value.

The importance of the proper education of youth and the worth of agriculture as a study, as well as methods by which the subject should be taught, are well expressed as follows:

"In the study of agriculture, let pupils be given not only theory, but practice. While they learn what science can teach in regard to the nature and preparation of the soil, the value of different crops, and the best methods of production, let them put their knowledge to use. Let teachers share the work with the students, and show what results can be achieved through skilful, intelligent effort."—*"Education,"* p. 219.

A proper study of soils requires a knowledge of both the physical properties and the chemical analysis of the soil. A soil may be fertile chemically, but in such poor condition physically that it will not produce crops economically. Then a study of the size, form, and arrangement of soil particles is necessary to determine the water-retaining power of that soil, capillarity, and the presence of acids, alkalies, etc. The chemical analysis must determine not only the quantity of various plant foods in the soil, but their availability. This work requires the same mental drill as would be obtained in the physical or chemical laboratory. The student of agriculture must go farther than this. He must study soils, not as he finds them in the laboratory, where temperature, rainfall, and sunshine are constant, but under the extremes of climatic conditions. A perfect soil for a humid climate would not

be suitable to an arid climate, etc. Therefore, the student of agriculture must be a student in every sense.

It requires just as much mental drill to learn the origin, history, development, conformation, general appearance, economic values, etc., of the various breeds and types of domesticated animals as to learn the history and development of the people who were instruments in their development. It requires just as complete a knowledge of English and as much mental drill to write an essay on the Percheron horse or Holstein cow, as it would to write an essay on some abstract subject. To figure the tonnage capacity of a silo or barn loft, to calculate the number of bushels of grain in a field, or of apples in an orchard, requires more than a knowledge of mathematics.

Bible Characters

The influence of the study of agriculture upon the lives of Bible characters is clearly indicated, and should be pointed out to the student of agriculture. Jacob, the supplanter, after spending twenty years on the plains and in the hills with the flocks and herds of his father-in-law, Laban, said: "Thus I was! in the day the drouth consumed me, and the frost by night; and my sleep departed from mine eyes." "That which was torn of beasts I brought not unto thee; I bare the loss of it; of my hand didst thou require it, whether stolen by day, or stolen by night." Gen. 31:40, 39. That twenty years in contact with nature and the animals of his flocks and herds, changed him from a petted, spoiled boy to a man who had the power, the perseverance, and the submission that entitled him to a change of name. Moses, forty years a ranchman on the plains of Midian, was changed from a man with a scientific worldly training,—a failure in God's work,—to the great leader of Israel. David's life

with his father's sheep on the hills round about Bethlehem, protecting them from the storms and wild beasts of that country, developed within him the courage necessary, when every one else failed, to go out in the open with a sling and rid Israel of their tormentor. Elisha's experience as a farmer made him a success in the pioneer life of building up a school the record of which God saw fit to put in Holy Writ.

Today we hear the slogan, "Fight or Farm." The boys in the trenches are dependent upon the farmers of America to feed and clothe them. Every other industry of the nation is dependent upon agriculture. The message to this people for forty years has been, "Fight or Farm." Either preach the gospel or support it. "Get out of the cities into the country." "Every one not actively engaged in the spreading of the message should have homes of their own upon the land." In Israel the Levite was to be supported by the tithe, and the other tribes were to live upon the land, not in the cities. Leviticus 23.

In Egypt many of the children of Israel gave up life on the farm, went to town, and became skilled workmen in various trades. In those days the slogan was, "Build or Farm." Israel might have done the farming, for it was an abomination to the Egyptians, but because of the reproach they disobeyed God and left their farms. Our school records show that approximately seventy per cent of the students from the farm who attend our schools return to the farm, and in many cases less fitted for the work of life.

When God thought to make a perfect man and place him under ideal conditions for mental, physical, and spiritual development, he placed him in a garden. When man again reaches that perfect state, he will find himself an agriculturist. If the study of agriculture was good enough for the dwellers of Eden, and will be continued in Eden restored, does not God desire that it find a place in the educational program that should

prepare the student for this life and the life beyond?

The South Lancaster Dairy Farm

M. E. OLSEN

SOUTH LANCASTER ACADEMY, which has the distinction of being the oldest of our now existing educational institutions, has always stood for a balanced education. In the early days most of the boys quickened their circulation and hardened their muscles by putting in



THE HERD OF GUERNEYS

some hours daily at the wood pile. Later, a broom shop and various other industries were carried on in connection with the school. In recent years, a goodly number of students have been able to pay their way through school by working in Elder Miles's book bindery or in the South Lancaster Printing Office, conducted by the Massachusetts Conference.

The chief industry operated by the school is the dairy farm, which has had an encouraging growth during the last few years and has been the means of enabling a number of promising students to put themselves through school. The academy farm includes land amounting to about one hundred sixty acres, of which a tract of fifty acres is at present being used by the Government. Most of this land lies about two miles north of the academy. One piece, of nearly thirty-eight acres, which we had to buy this spring in order to furnish pasturage for

our cattle, lies only a mile away in the same general direction.

We have some forty-two head of fine cattle, chiefly of the Guernsey breed, and our herd is steadily growing both in number and in quality. The sire of the herd, a registered Guernsey bull, was bought as a calf and raised on our farm. The abundant supply of rich milk from this herd of healthy cows, is a valuable part of our food supplies.

The academy is justly proud of the growth of this department of its work. When Brother Stillman Brown, the present superintendent, took charge of the farm in the spring of 1911, things were in a small way. There was only one team and practically no farm machinery. There was a two-horse dump cart, and when a good-sized load was to be hauled, the forward wheels of the one-horse wagon were attached to this cart. Today we have a fair equipment, including a good two-horse wagon with three different bodies, a one-horse ex-



THE NEW BARN

press wagon, a manure spreader, a gasoline engine and cutter for cutting ensilage, a corn husker, a potato planter and digger, a two-horse cultivator, plows, harrows, etc., as well as a small auto truck and a touring car. The farm has three good teams.

The present year records an important advance step in the putting up of a new barn. The new building, which is neatly joined to the old, is a hundred feet long, and forty feet wide. In the basement, which, it will be seen, is well supplied with windows, there will be room for

(Continued on page 92)

The Union College Dairy

H. A. MORRISON

THE Union College dairy consists of forty-three head of registered Holstein cattle. Our herd sire is College King Segis Alcartra, whose sire is known as the \$50,000 sire among Holstein breeders. His mother at four years of age held the world's record for the production of butter in seven days. Our herd is made up of young cows, and as fast as they freshen they are put on test, and seven-day records are made. We have also carried on yearly tests with several of them. During the time a cow is on seven-day test, she is milked four times a day. All the cows on yearly test are milked three times a day during the year.

The dairy is used as a laboratory for those students who are studying agriculture and dairying, though the care of the stock does not remain in the hands of the class. We have one man who has charge of the feeding and milking of the cows, except those on seven-day tests. Another man has charge of the feeding and care of the calves. Our farm manager has supervision over all this work, and is also instructor in agriculture and dairying, and personally feeds and milks the cows on seven-day tests.

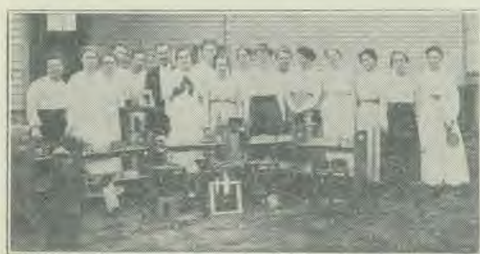
There are really three groups of cows to be cared for each day. The group on seven-day tests under direct care of the farm manager are milked and fed at five and eleven both forenoon and afternoon. The group on yearly test are milked and fed at five, one, and eight. The cows milked twice a day are milked and fed at five o'clock morning and evening. Both scientific feeding and scientific care of the milk are insisted upon.

The students in the dairy work study the type of the dairy cow, learn to judge dairy cattle, to feed for ordinary milking and for records, and to care for and market the milk.

Elementary Woodwork

C. A. RUSSELL

WOODWORK has come to stay as a requirement in our course of study. Yearly a large class of teachers attending the summer school at Emmanuel Missionary College desire a course in this subject. The accompanying cut shows the 1918 manual training class. Nearly all of these took the course in woodwork. Some of the articles constructed may be seen in the picture. All our larger local schools should equip for carrying on this work in a practical



MANUAL TRAINING CLASS

way. It goes without saying that all our higher schools should be thus equipped.

A teacher should not attempt to give instruction in woodwork without having had some training. As well attempt to teach arithmetic or history or English without a knowledge of these subjects. The work itself is so fascinating that with a little initiation the enthusiastic teacher will go on and work out device after device, until a degree of expertness has been achieved. The study of tools, their uses and care; of various kinds of wood, and their adaptability for different projects; of joints, and how to form them; and a practical knowledge of the fundamental operations, namely, sawing, boring, and chiseling, are the beginnings of woodwork.

Many well-worked-out models have been ruined through improper finishing. The steel scraper, plenty of sandpaper, and an abundance of patience, form the recipe for success in finishing a project. Wood stain, shellac, and varnish form a suitable finish for soft woods. Wood

filler and either varnish or finishing wax make the proper finish for oak or any open-grain hard wood. The filler may be tinted any desirable color.

Two or three two-vise benches costing about twenty dollars, and twenty or thirty dollars' worth of tools afford a satisfactory beginning for a woodworking equipment in the average elementary school. (For a list of manumetal school supply companies, see page 94.)

Building at Union College

H. A. MORRISON

UNION COLLEGE has this summer been putting up an addition to its barn to house its young livestock. This barn was designed by the teachers, and all work upon it has been done by students and teachers. Prof. L. C. Damsgard, of the department of mathematics and physics, had charge of the construction work. Associated with him were four of our instructors and three or four students. This building is not quite completed, but will be finished entirely by the students.

We are also enlarging our milk house, and building an addition to our power plant, which is to heat both the sanitarium and college buildings. The work on the college buildings is being hastened as rapidly as possible, because we are in need of them. Therefore, an outside carpenter has charge of their construction. He is, however, hiring a number of our boys. It has become our custom to have college repair work and improvements supervised and handled entirely by students and teachers. Professors Damsgard and Plumb are remodeling the physics laboratory, and building in stationary desks and cabinets.

It is at all times to be kept sharply in mind that the schools are not only to educate people in order that they may be educated, but also to educate them in order that they may do things.—*Andrew S. Draper.*

Two Fundamentals for Girls

Cooking and Sewing

Domestic Science in Education

RENA KLOOSTER

THE Puritan girl of a little more than a hundred years ago possessed little more than the most rudimentary education, and many never learned to read and write at all, for such knowledge was not considered necessary to their future welfare.

By degrees this idea has been abandoned, until in this age of mental development women have been accorded the same privileges their brothers enjoy, and we find few professions open to men that are not open to women. Chiefly where brawn rather than brain figures, have men alone held sway, but even in this, who knows what unthought-of, undiscovered powers women may find within themselves as the call of war rouses each one to do the things she has believed impossible?

With this widespread entrance of women into man's work the cry has gone up that women are being educated away from their sphere and even from their tastes for those things that are usually considered natural and inherent. Nor is that cry an unjust accusation, for many and many a home that might have been, has degenerated into a mere place to hang one's hat. The "home" that we may know, or have known in our childhood or that observation occasionally refreshes us with, is growing more rare.

Men and women of thought recognize this, and fearing what it will mean to society, have in recent years endeavored to educate women back to their ultimate work of home-making, and now, far and wide, we see in grade school, high school, and college, departments of home economics where girls may receive an intelligent understanding of housekeeping. So great an interest has been aroused in this that in the average school no single department is more crowded than the

home economics department, and in normal schools the teaching of home-making is finding more and more favor in the eyes of teachers.

Long years before men and women of the world began to awaken to the value of a balanced practical and theoretical education for boys and girls, the spirit of prophecy gave instruction concerning the need of industrial education, but God's people were slow to heed, and now we see that if more faith had been exercised, we might have been leaders in the industrial reform that is taking place in education.

Although time is short, there is still much that may be done. Concerning industrial education, "Counsels to Teachers" says:

"It is a popular error with a large class to regard work as degrading; therefore young men are very anxious to educate themselves to become teachers, clerks, merchants, lawyers, and to occupy almost any position that does not require physical labor. Young women regard housework as belittling. And although the physical exercise required to perform household labor, if not too severe, is calculated to promote health, yet they seek for an education that will fit them to become teachers or clerks, or they learn some trade that will confine them indoors, to sedentary employment. . . . But there can be no employment more important than that of housework. To cook well, to place wholesome food upon the table in an inviting manner, requires intelligence and experience. The one who prepares the food that is to be placed in the stomach, to be converted into blood to nourish the system, occupies a most important and elevated position. The position of copyist, dressmaker, or music teacher cannot equal in importance that of the cook."

It is estimated that ten years after graduation, ninety per cent of young women enter homes of their own. Of this Sister White says:

"There are very many girls who are married and have families who have but little practical knowledge of the duties devolving upon a wife and mother. They can read, and play upon an instrument of music; but they cannot cook. They cannot make good bread, which is very

essential to the health of the family. They cannot cut and make garments, for they have never learned how. They regard these things as unessential, and in their married life, they are as dependent upon some one to do these things for them as are their own little children. It is this inexcusable ignorance in regard to the most needful duties of life which makes very many unhappy families."

In the same chapter she also says:

"There should have been experienced teachers to give lessons to young ladies in the cooking department. Young girls should have been taught how to cut, make, and mend garments, and thus become educated for the practical duties of life."

How can we teach girls that homemaking is the most wonderful, most responsible work that women can undertake, and inspire them with an ambition to make better homes and home interests, at least in such ways as lie in their power?

Not an art or a science but bears a relationship to the things of the home, and if in our courses we can teach girls to recognize these relationships and awaken their desires to discover others, we can do much to enlist their interest. To make a home restful and artistic is quite as much a part of her work as are cooking and cleaning, and this study seldom fails to find enthusiastic students.

Nor is cooking one whit less interesting than house decoration and design. Of cooking, Ruskin well says:

"Cooking means the knowledge of Circe and Calypso, and of Helen, and of Rebekah, and of the Queen of Sheba. It means the knowledge of all herbs, and fruits, and balms, and spices, and of all that is healing and sweet in fields and groves, and savory in meats; it means carefulness and inventiveness and watchfulness and willingness, and readiness of appliance; it means the economy of your great-grandmothers and the science of modern chemists; it means much tasting and no wasting; it means English thoroughness, and French art, and Arabian hospitality; it means, in fine, that you are to be perfectly and always, 'Ladies'—loaf-givers."

It is surprising to find what interest and anticipation may be aroused in the teaching of cooking. Especially if the class is taught on the larger scale such as is possible in our schools, does the

(Concluded on next page)

Teaching Sewing in Our Schools

RUBIE M. OWEN

THE general aim of the school course in sewing is to enable the girl to make her own clothing in a healthful, neat, and becoming fashion. This standard can be more easily reached as a part of the regular school program than in the average home.

Girls are a great help and inspiration to one another in this line of work. Recently I heard one young lady say to another, "I wish I had your talent, and could make a dress as quickly and as beautifully as you can." The reply was, "If you had seen me when I was a beginner, you would have thought that I was one of the slowest."

Well do I remember how hard she worked on her first large problem. The sewing teacher will find that some girls with less experience, but who possess initiative and the stick-to-it quality, may be allowed with careful supervision to undertake large problems.

There is great pleasure in studying each girl and her ability, and watching her grow, when you assign problems that seem to the pupils to be just a little beyond their skill.

The study of the household arts in the academic course should not be confined to work in sewing and cooking, as they are only a part of the problem of homemaking. Home management, home furnishing and decorating, home sanitation, etc., should also find a place in the course, and should run parallel with sewing and cooking. A good high school textbook which covers these various lines is "Shelter and Clothing," published by the Macmillan Company. A most satisfactory textbook for the advanced class in sewing is "Clothing for Women," published by the J. B. Lippincott Company, of Philadelphia. It is especially strong in its exposition of constructive processes.

Sewing tables should be low and large enough for two to work at and do all the small cutting. Tables with two drawers are a great convenience for

holding small garments and materials. There is a great advantage in having two work at the same table, as they have each other's counsel and suggestions. In working on the drill work for mastering the machine attachments, it has been found by experience that the exercises are accomplished in about half the time, and sometimes less, where two are allowed to go to the machine and work together. They study the attachment book and figure out the adjustment of the parts, then each in turn makes her samples. This method requires less help from the teacher.

Working together does not mean confusion or disorder. The girls work at their regular tables for all small cutting and handwork, and go to the machine for stitching, and to the cutting tables for all large cutting. The room is always quiet enough so that any one in any part of the large room can ask a question and the teacher can answer in a low tone of voice. The quiet hum of work is pleasant to the ears.

The sewing-room should be attractive, light, and convenient, and should reflect the ease and quiet influence of a well-regulated home. Take pride in keeping the room neat and tidy during working hours, for this will help create a restful atmosphere for tired nerves.

Now that college credit is given for one year's work in sewing and one in cooking, we should be careful to offer such courses as will bring the work up to the standard of a respectable college credit. These should be advanced courses, and should be open only to those who have fulfilled the academic requirement. As to the sewing course, it should include more advanced work in textile, pattern-making, theory of color, designing, advanced constructive processes, and making more difficult garments.

All courses in sewing now include war relief activities. This work should begin in the primary grades of the church school, and include such a variety of articles and garments that some of it may be given with profit in each year's

work. Organize a school auxiliary or work as a unit in connection with the nearest Red Cross organization. Incidentally this plan will help to reduce the usual expense for materials used by the pupils.

From ten to fifteen make a convenient-sized class in sewing, for it matters not how well our course may be arranged, there must be time for individual help. Always approve the arrangement of the patterns on the cloth, in case of beginners, so that there will be no mistake in cutting. A machine should be provided for every three or four pupils.

After having completed a school course in sewing, a girl should be able to make her own clothing. This will save her one half of the usual expense. She will be able to appreciate the textile arts; to have a greater love for humanity because of the refugee garments she has made for her sisters across the sea; and to make her life more useful and helpful should she go to a foreign field.

Domestic Science in Education

(Concluded from page 78)

interest grow, for each student knows that the work of her hands is to undergo the acid test of student criticism, and every effort is put forth that the result may bring commendation from both teacher and fellow students.

At Emmanuel Missionary College we have made a beginning, but already we see evidences of the value of the one year's work, and that with little more than the equipment afforded by the school kitchen. In another year we hope to offer a full two years' course, just as is done by normal and business departments.

Our students are being taught not to demand elaborate, expensive furnishings, with all heart could desire to make life comfortable, but rather how to make the most of little, living strictly within their means, and yet finding joy in life because their creative and inventive powers are being tested to the utmost.

Fundamental for Boys and Girls

Science and Art of Printing

Printing at Washington Missionary College

B. B. SMITH

WASHINGTON MISSIONARY COLLEGE has a well-equipped Printing Department, which is conducted not only for the training of young men and women in this vocation, but as a means of furnishing employment to those who desire to pay wholly or in part their school expenses. Students work on a schedule of twenty-five hours a week, and are paid for their services according to the value of their product. Those taking printing as an industrial subject receive credit on their college course. This subject covers a period of three years, and is based upon Henry's text.

Besides the superintendent of the department, a foreman is employed, who spends the full day in the office, the students working during the afternoon only, except during the summer months.

About twenty are kept busy, and thus find remunerative employment. Approximately \$5,000 is paid out each year for this labor, nearly all of which is returned to the college in tuition and school expenses.

The equipment consists of a cylinder press, two job presses, a folding machine, a paper cutter, a wire stitcheer, and a multiple punching machine, together with a new outfit of type faces.

The work turned out is largely denominational, including the *Church Officers' Gazette*, the *Missions Quarterly*, *Missionary Readings*, statistical reports, the *Morning Watch Calendar*, and large quantities of stationery and pamphlets from conferences and tract societies. Enough commercial work has been furnished from the city of Washington to keep the two job presses busy, thus furnishing a variety of work by which our students may get the needed practice in the various lines of printing.

The financial statement of the college shows a net gain in the printing department for the year ending June 1, 1917, to be about \$2,600, while for the year ending June 1, 1918, it was about \$1,700, the difference being caused by the increased price of labor and material.

The value of the training received by these young men and women cannot be measured in dollars and cents. Many have learned a trade which will be invaluable to them, whether their future work be in foreign fields or in the homeland. Since the establishing of the college press many of the former employees have taken more important positions, not only in the publishing work, but in other lines of Christian activity. No young person should fail to avail himself of the opportunity afforded by our schools in teaching the occupational lines of work.

Printing at Emmanuel Missionary College

CUSH SPARKS

For years we have been counseled through the spirit of prophecy to strengthen the industrial work in our schools. Printing is one of these industries. The conviction that we should follow this instruction has led to the development of the printing industry in our college. The history of the denomination, as well as that of other great reform movements in the world, demonstrates the power that printing has in the promulgation of the gospel.

Years ago the minister was trained for his work like the apprentice, laboring with an experienced person in the ministry. That method proved too slow to keep pace with the growing demands of our cause. Therefore we established schools to prepare young men to become ministers.

The same is true of our printing industry. The time has come when more

instruction in this line should be given in our schools. A well-equipped school shop can prepare students to operate printing offices either in the homeland or in the foreign field. Emmanuel Missionary College is equipped to do this work. Our printing department occupies considerably more than two thousand square feet of floor space. We have one large cylinder press and two job presses, a power folder, a cutter, and a stapling machine. We have a good assortment of job type, and teach job composition. The department employs from fifteen to twenty students. Some earn all their expenses in school.

Printing is a regular study, requiring two hours a day. Most of this time is spent in practical work in the shop. The student is taught typesetting and is required to practice it until a good degree of efficiency both as to accuracy and speed is acquired. This part of the work occupies one semester. The second semester is spent in the pressroom learning to operate the presses, the folding and stapling machines, and becoming familiar with the other work of the department. The second year, job composition, display typesetting, office routine, and the cost system are studied.

The department has been very successful financially. Special attention is given the spiritual tone of the work.

The Printing Industry at Union College

M. E. ELLIS

INTERSPERSED through the writings of Mrs. E. G. White are many references to the printing industry and its connection with our training schools. No other industry, unless it be agriculture, is more frequently mentioned or more highly recommended as one from which great good may be derived by the student. The advantages to the student are also tersely set forth in the following paragraph:

"Everybody is familiar with the old saying, 'The printing office is the poor man's university.' There is a natural relationship between

printing and almost all subjects of the school curriculum. There is no other line of industrial school activity that is so peculiarly rich in its associations. Printing invades and transforms other school topics by charging bookishness with reality."—*Wm. B. Kamprath, principal Public School of Printing, Buffalo, N. Y.*

We aim in our work to cover enough ground in one year, in a logical sequence of subjects, so that at the close of his study and practice the student will be competent to select an outfit, install it, correctly lay out any ordinary job of printing, complete the job himself in every detail, including composition, press work, and simple forms of binding, estimate the cost of the job, and do it all correctly and in accordance with typographical principles. A little thought makes apparent the value of this course of training as a part of the work given in our training schools.

Our "laboratory" is equipped with two job presses, one cylinder press, and a stitcher, all run by electricity. Our cutter, punching, round-cornering, perforating, and numbering machines are hand or foot power. We have an excellent assortment of type, ornaments, brass rules, and furniture.

We have found the business of a regularly conducted printing office the best spur to the interest of the student, and we do enough work yearly to pay all the expenses of the office, and make a neat profit in addition. We print five regular publications, and do a full line of job work.

Our apprentice class occupies, beginning with this year, a separate room, with an individual printing outfit for each student, including type rack, cases, job type, and stone room. We study as a text Frank S. Henry's "Printing for School and Shop." After the first year we offer employment to all who complete the course and continue in school. We gave employment last year to sixteen students. This course of training is a very distinct advantage to each one who takes it, and our workers make good in our own shop and in all others where they work.

From and For the Field

We draw our school recruits from the field. We educate them for the field. How can we better adapt our training to the field? One educator who has made good tells below how he became a recruit. Another who has made good raises the timely question, What can we do to improve our teaching to meet the needs of the field? Ponder these questions.— Editor.

How I Became a College Recruit

C. L. BENSON

ONE morning twenty years ago, I was building a rail worm fence in the Boston Mountains of Arkansas. I had completed several panels out of green rails, when they started to slide down the mountain. This experience was repeated several times, and each time it was necessary to take rapid steps in order to get out of the way of the rails. At length I became disgusted, and asked myself the question if I was always to devote my life to clearing ground and building rail fences. I decided at that time to get a college education.

The way did not look very bright, but I laid my plans. For three consecutive years I earned the money by working on the farm, to go to school. The first two years, reverses came, and the money I had earned went to increase the family income. At the close of the third summer I had my plans matured to attend a worldly school, expecting to get my preparatory work out of the way, and then earn my way through a medical school.

The only one who opposed my plan was *my mother*, who was exceedingly anxious that I should attend Union College. I was able to meet successfully all her arguments except one. When she asked me to go to Union College *for her sake*, the only way I could meet it was to go. With twenty dollars and my ticket, I started for College View. I shall never forget the thrill that went over me while sitting in the street car, as I overheard two men talking. One said, "That building across the field is Union College." Then it dawned upon me that I

was a country boy, absolutely among strangers. How I was to get through the school year, hundreds of miles away from home, and with very little money, was a problem.

When I first stepped into the college chapel and saw the program outlined upon the board, my heart sank within me. At the country schools which I had attended, the program was always placed upon the board, and I thought if I had to take all those subjects, I would better go back to plowing corn.

That afternoon I found myself in a place where I was more at home. The farmer desired help, and in my overalls and jumper I reported. Many boys were working in the field, but they were all strangers to me. I felt terribly homesick, and took my row of broom corn, little thinking of my surroundings, because my mind was with the old folks at home. When I finished my row, I looked back and saw that the other boys were about halfway across the field.

I continued to work afternoons, doing the best I could, not thinking of the fact that I was doing several rows more each day than the other boys, but when I came to settle up, the farm manager paid me for one and one-half hours for every hour that I had worked. Then he asked if it was necessary for me to meet my expenses for the year. I informed him that it was. He said their best jobs were taken, and that only one remained, and he thought that was too heavy for me. That job was hauling coal. I had never done that kind of work, but was willing to try it.

I was given a team of large gray and bay horses, about seventeen or eighteen hands high. It was necessary for me to

stand on the manger in order to get the bits in their mouths. All winter I had a steady job, through mud and dust, through rain and snow.

My summers were spent in the canvassing field, a thing I had vowed before becoming a Christian that I would never do. The succeeding school years I secured work to supplement my summer earnings, scrubbing floors, washing pots and kettles, shucking corn, pulling beets, and acting as night watch. In my junior year the college gave me employment in the retail department of the bakery. My senior year I had charge of the bookstore, and received eight cents an hour for my time.

Through these means I was able to meet all my expenses in college, and also those of my sister, and succeeded in completing my college course without owing any man anything.

Union College did great things for me. There I gave my heart to God, and there I got a vision of the great world's needs, and received my call to enter the Lord's work.

How Can We Better Adapt Our Teaching to the Needs of the Field?

M. E. OLSEN

WHAT can we educators do to turn out from our schools a product which, if possible, more nearly meets the urgent requirement of the present day? Is it not possible, to begin with, that we could without seriously impairing the cultural side of education, give more attention all the way along to what we may call the vocational side? We are doing this to some extent already. We have a class in pastoral training for the young men who look toward the ministry; we have practice teaching for our normal students, and we try to make our regular teaching practical; nevertheless are we not often so fully engrossed with the details of getting the contents of certain textbooks into the hands of our pupils that we partly lose sight of these larger things? If we saw in the classroom be-

fore us day by day young men and women who were shortly to go out from under our training, not to pass severe examinations to ascertain whether they were able to reproduce the contents of certain books of courses of study, but to go from house to house and win souls for the kingdom, would not our work as teachers take on greater breadth and depth? and would it not have a new vitality?

What we need is not merely vocational knowledge, but a true vocational spirit, permeating all the work of the school, and making it instinct with life and power,—a spirit that should make our students realize day by day as they engage in their school duties, that the needs of the world can never be satisfied by head knowledge; that real men and women are not half so much interested in what a college graduate knows as in what he can actually do; that the conference president looking for a new recruit will give more for a young man of forceful and well-balanced character than for one who is able merely to get good marks in the classroom; that the questions asked concerning a young person applying for work are practical ones: Can he get up early and work late? Can he, and will he, put his whole energies into the task committed to him? Is he able cheerfully to do disagreeable things when they need to be done? Is he willing to make personal sacrifices for the cause of truth? Is he industrious? Is he obedient to lawful authority? Has he the sense of responsibility, so that he can be trusted to carry a thing through to completion, even at the cost of rest and sleep? Is he somewhat of a spiritual athlete, able to carry his own burdens and lend a helping hand to others? or does he easily become discouraged?

It may be objected that these are matters of individual character building which cannot be taught in school; but the objection is not well taken. Our schools exist primarily to train young people for our denominational work;

and inasmuch as the above-mentioned qualities are highly essential to success in such work, it must be our duty as educators to instil them in the hearts of our pupils.

Summing it all up in a few words, what we seem to need is a renewed emphasis on the essentials, a fearless discarding of nonessentials, and in general a more exact adaptation of our courses and methods to the demands of the special work intrusted to this people.

" A New Era in Education "

L. L. CAVINESS

UNDER the heading, " A New Era in Education," there recently appeared in the *Independent* an article by John H. MacCracken, president of Lafayette College, in which he shows in a striking way the changes which the Great War is bringing about in the United States in the realm of education. To one interested in the educational system of the Seventh-day Adventists, the reading of Professor MacCracken's article could hardly fail of suggesting the idea that the present world emergency, if rightly understood, will bring about a reconsideration of our own denominational school program so as to meet more fully the practical demands which a time like this is already beginning to make upon us.

The efficiency and the purposefulness which are demanded in public education should show themselves more fully in our own denominational schools. As the secular schools of our land will from now on contain many who have pledged their lives to their country for overseas service, our schools, as training centers for recruits for King Emmanuel's army, should contain many who have definitely pledged themselves to overseas service for their great Commander. We would urge upon the youth who enter our colleges, serious consideration of the statement of life purpose made by the members of the foreign mission bands, now organized in nearly all our advanced

schools. Who will enlist for the finishing of the work in fields beyond?

Every student should be preparing for some definite line of work in service for Christ. If he is not called to foreign service, let him choose some definite work at home. Let him join with others of like purpose in the school, and encourage and help others toward a more efficient preparation in that specific line. This does not mean that no courses of general culture should be chosen by the student, but the ideal before him will not be the mere gaining of sufficient credits to obtain a diploma. Whatever courses he may pursue, they will all be taken with the sole purpose of increasing his ability for efficient service.

If this ideal were to prevail fully throughout our ranks, it might mean a considerable alteration of our curricula; and changes might be made which would greatly improve our whole educational system. This would not mean, however, the dropping of the so-called cultural courses, but there would be more purposeful study in their pursuit.

The leaders in our work, both general and local conference officials, might well make a survey of their prospective needs for workers in the several lines of our denominational activities, and then recruit sufficient students for the workers' bands, now organized in most of our schools, to cover the specific number of workers required in each line. Thus these student organizations might serve as a source of supply of trained workers.

Efficiency would demand that consideration be given to the principles of educational psychology in the arrangement and sequence of courses. This would surely mean some alterations in the present curricula. When courses are taken in wrong sequence, or by students not yet prepared by mental development to pursue them advantageously, a great loss occurs in the efficiency of the student's mental education. Let us definitely set about saving this wastage.

Unquestionably, also, more attention should be given to physical education,

not only along lines of practical industries, but also in matters of personal hygiene and physical development. With the balanced development of physical, mental, and spiritual faculties, which is the ideal of Christian education, a student should certainly be in a better condition of health at the conclusion of his school course than at the beginning. Yet this, unfortunately, is not generally the case.

When a student enters school, we make a fairly thorough examination of his mental status, in order that he may be properly classified in our courses of study. Some attention is also given to his spiritual condition, at least by those members of the faculty who feel a special burden for the spiritual interests of the school and its constituent members; but unfortunately, little attention is paid to the student's physical welfare, and certainly no thorough physical examination is required. While we ought to continue to give more rather than less consideration to the mental and spiritual phases of the student's education, surely we should cease to ignore so largely his physical education. Let us give every student a thorough physical examination, and then make a definite place in his program for the physical training which he needs to develop a strong, healthy body, capable of enduring the strain which the future will unquestionably put upon it.

There also rests upon us, as citizens of this great country in which God has placed us, a responsibility to do our part to help meet the needs of our fellow men both at home and abroad in this time of world crisis. As those to whom God has given special light, are we not derelict to our duty if we fail to utilize to their full extent the greatly increased opportunities for service at this present hour? Let us meet the challenge of this supreme moment of earth's history, even though it does necessitate study and effort so to vitalize our educational system that it may actually produce the trained men and women needed now.

Practical Education at Clinton

HEDWIG K. TETZLAFF

GENUINE preparedness, according to the spirit of prophecy, is the development of the three primary factors in a human life; namely, the spiritual, the mental, and the physical. The Clinton Theological Seminary gives due consideration to all, and tries to inculcate a love for all. The spiritual and mental sides of education are well provided for, and in addition to the agricultural and horticultural pursuits, baking, printing, carpentry, engineering, laundering, and general domestic subjects help to give our young people the training in the third requisite, in order that their lives may be perfectly rounded out to the glory of God.

The bakery is a neat, well-lighted, one-story brick annex, furnished with modern equipment. The large consumption of bread, cinnamon rolls, cakes, etc., vouches for our appreciation of this department. The work is carried on entirely by students.

Alongside the bakery is the printing office, our newest and yet most lively industry. An experienced student, aided by a faculty adviser, heads this department. Work for five or six students can easily be provided.

Above the printing office is the carpentry department, conducting classes almost daily. Both the upper-grade students and the church school children take advantage of the valuable instruction in cabinet-making and general carpentry that is offered here. The furniture constructed is the pride of the seminary as well as of each individual workman. This branch of the industries offers employment to several students working their entire way through school and to some for part time.

The classes in engineering and advanced engineering are taught by a young man skilled in this trade, who gives his time to preparing young men in the theoretical knowledge. The power plant, in charge of an experienced en-

gineer and electrician, offers the practical knowledge. The necessary labor in the engine house, laundry, etc., is for the most part handled by the students in these courses, several obtaining sufficient remuneration to pay all expenses; a number work part time only.

The culinary department, under the wise management of our matron gives employment to about seven students.

In addition to the above-named industries, the seminary conducts manual work in the Normal and Commercial Courses. Although these industries do not offer financial help to students, yet the classes are comparatively large and well attended.

We Must Educate Our Children for Our Own Work

I. H. EVANS

OUR institutions of learning have been established for the purpose of producing efficient workers. Our schools are doing good work. The students who are trained in our schools are *almost to an individual* asking for a place in our own work. This shows that the schools are doing their part. The reason, then, for this lack (the lack of laborers) must lie with the ministry itself, our conferences, and those in control of the fields.

We must educate more children, which cannot be done without instituting a vigorous campaign to bring our children into our own schools. Our system of schools is the *strongest and best* ever devised in this world. The need of our message and our work demands such quality, but we seem to lack the force to persuade our people and our children, as fully as we ought, to enter our schools. There are among us children of the poor, of those who cannot themselves educate their children. It is our duty to devise some plan whereby they also may receive the benefits of a Christian education.

The seed which germinates and becomes a never-ending desire for truth

and service, must be planted in the hearts of all our children, so that they will say, "I want—I *must* go to school." I am in favor of qualifying our schools to do the best work. Just as the Government drafts her men, so we, only by the power of God, are to draft our students, and commandeer them for our schools and our work.

Our present policy is to allow teachers one month's pay in addition to the work of the regular school year, and during the summer organize them into a campaign for boys and girls, so that *every family in all our conferences* may be reached by some teacher, thus arousing the interest everywhere in behalf of education. The contact of the teacher with the student in the home would not only influence him to go to our schools, but would give a powerful influence by the personal touch over the student when and after he enters the school. Some student may consider the discipline too hard. He will naturally confer with one whom he regards as his teacher-friend, which will result in much help in the discipline of the school.

Now, I wish to see every minister, every Bible worker, every teacher, every employee in this cause, exerting his influence in a campaign along this line. Many a student has received his first inspiration to go to school from the preacher visiting his home. There ought to be a *mighty pressure* brought to bear toward encouraging our people to send their children to our schools for training. The needs of the field should be set before them, and this is the means for filling that lack.

Men must be developed for all parts of the work. We want a practical "getting at" the secret of educating our boys and girls for our own work.

Discipline

If we compel ourselves to learn what we ought to know, and use it when learned, our discipline will take care of itself.—*Garfield.*

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

Oral Spelling.—To be successful in oral spelling, make the drill lively and interesting. A few devices may be used which change the order of the exercise and prevent it from becoming monotonous.

Let the children play they are having a game of baseball. Choose three corners for bases. Call on a child to spell three words. If all are spelled correctly, he runs quietly to first base. When the second child starts for first base, the first one runs to second. When the third child runs for first, the other two

advance one base, the first running to his seat.

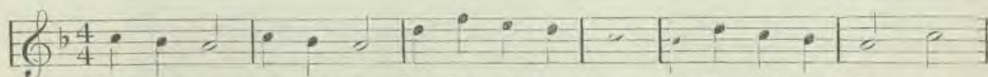
Have the children form a circle. Have one blindfolded in the center. He points here and there as the teacher pronounces the words. The pupil pointed out spells the word. Let the children take turns being blindfolded.

Another device which proves interesting is to have the class form a straight line across the back of the room. As a word is spelled correctly the pupil advances one step. See who will be the first to get to the front of the room.

Again, appoint two captains. Have them choose sides. When a word is missed, the

GIFTS FOR JESUS

ANNA A. PIERCE

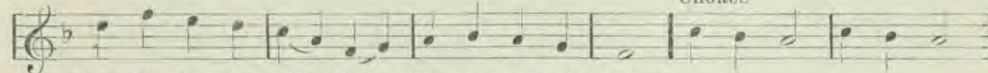


1. Cheer - ful - ly, cheer - ful - ly, We Thy chil - dren come. Take our gifts, dear Je - sus,
2. Drop them in, drop them in, Hear the pen - nies fall, Nick - els, dimes, and dol - lars,
3. Care - ful - ly, care - ful - ly, We would live for Thee, Ev - 'ry day, dear Je - sus,



Bless them ev - 'ry one. May our dimes and pen - nies A rich bless - ing be
We would give Thee all. Hearts and lives we give Thee, All Thing own to be,
Do some work for Thee, Gifts of love and kind - ness Seat - ter here and there,

CHORUS



To the lit - tle chil - dren Far a - cross the sea. }
All we have, dear Je - sus, We would give to Thee. } Cheer - ful - ly, cheer - ful - ly,
Lit - tle mis - sion - a - ries Go - ing ev - 'ry - where. }



We Thy chil - dren come. Take our gifts, dear Je - sus, Bless them ev - 'ry one.

captain of the opposite side may choose one from the side missing the word. See which side has more members when the exercise is finished.

Draw a ladder on the board containing the same number of rounds as there are words in the spelling lesson. See how many can climb to the top of the ladder, ascending one round as a word is spelled correctly.

SECOND GRADE—Rose E. Herr

Spelling.—The first-grade children are very happy when, beginning with the second semester, the teacher pronounces words to them the same as to the other grades. How pleased they are to carry home their little spelling booklets at the end of the first week, with a perfect lesson for every day! As these children enter the second grade, do all you can to stimulate their interest in spelling.

Frequently drill them in visualization. Write the new words on cards in large, plain script. Flash these one at a time before the pupils. Ask those who know how many letters are in the word to raise their hand. Call for the first letter, the last, the second, the one next to the last, etc. At length ask some one to pronounce the word. Later, drills may include questions about the number of syllables and how many letters in each. Because of the intense nature of this drill, devote to it only a few minutes at a time. Such effort is well repaid by the greater skill with which the children attack new words to be mastered.

When the spelling assignment is made, have the words correctly pronounced by some pupil if you are sure he knows how, otherwise, by the teacher, then let the class pronounce them in concert.

Always have a drill in oral spelling precede the written work. To prevent monotony, vary the form of the oral drill. Sometimes let the pupils come to you, one at a time, and sell the words in a whisper. Permit those who spell them correctly to go to the board to write or draw. Those not prepared can give special attention to the words missed.

Look ahead and select the words to be spelled. Assign them as part of the reading lesson. Request each pupil to pronounce them correctly, and to locate the sentences in which they occur. Mark each word with a tiny dot. Do not tell your pupils these are the selling words, but see who will be first to make the discovery.

Use various devices to record perfect lessons. Boys and girls like a rainbow color scheme. See who can get a perfect rainbow first. On the blackboard, rule off a space for names. Follow this with a row of thirty squares, one for each day of the period. Make the first square red for each one who receives 100 per cent. If one is absent, mark "a" in his

square; if words are missed, write a figure to show how many. Do the writing with white crayon. On the second day, if the delinquent returns, and has perfect lessons, fill in his second square with red. Each time a pupil fails he begins anew. This encourages him to try again. Those reciting perfect lessons have a color added to their rainbow each day until it is complete.

When parents visit your school, explain the plan. This often acts as a spur to the pupils. Try to correct the written lessons and mark the record during the recitation period. This is most satisfactory to teacher and pupil.

In the early spring, when kite-flying time arrives, make a kite of white cardboard, and attach two strings by which it may be raised to the ceiling. To within five feet of the floor, divide the distance from the ceiling into half-foot spaces. Mark these on the wall. When the entire class makes a perfect record raise the kite one space. A contest between the first and second grades to see whose kites will reach the ceiling first, will stimulate all to study harder.

THIRD GRADE—Hazel Gordon

Reading.—November! What interesting supplementary reading you can get this month! The teacher will find much help in the diaries written by the settlers. F. A. Owen Company, Dansville, N. Y., publishes two little books that are especially good,—“The Story of the Mayflower” and “The Story of the Pilgrims.”

After reading about the early settlers, my children decided to do some of the things they read. They built rude log houses on the sand-table; simple looms were constructed, rags were dyed with walnut shucks, poke berries, and onion skins, and then woven into rugs. The more we worked the more enthusiastic the children became, and they were eager to read the early history which described the people's manner of living.

Language.—During November, instead of merely reading Thanksgiving stories and having them retold, let the children act the part of Indian warriors and tell the story of the first Thanksgiving from their point of view, or let them represent Pilgrim children. A little Pilgrim boy might write a letter to Holland, telling why he wants to stay in America. Or he could tell how he spent Thanksgiving Day, and the things he had to eat.

The children will enjoy contrasting the settlers' homes, schools, and means of travel, etc., with our modern conveniences.

Arithmetic.—This month we study the multiplication tables. Practice counting by two's, three's, etc. Do not present a carefully worked-out table, but have the class discover the product of each combination; thus they watch the

tables grow. Be sure to teach two times three and three times two, and give a variety of forms for each combination. Children like to recite multiplication tables.

Bible.—When you tell Bible stories, use the language of the Bible. By doing this you will have a more easily understood vocabulary. Make the Bible real to the children. Help them to see the men and women as real people. Show the love side of God in your studies. Help the children to regard him as a friend. Enter into the spirit of the story. It is important, too, to know the names and places of the story so that you do not need to hesitate. When you tell the story of Noah, try tapping on the board with chalk to imitate the sound of the rain falling.

FOURTH GRADE—Sydney Bacchus

Reading.—November furnishes a wealth of interesting supplementary reading, in the landing of the Pilgrims and Thanksgiving stories.

Pupils in this grade read to learn as well as learn to read, and should have much practice in silent reading.

The lesson about Longfellow on page 102 may be treated in this manner: Ask the class to make a list of words difficult to pronounce or hard to spell. They may also name the people and places mentioned in the story. You can vary the assignment by placing on the blackboard a number of carefully prepared questions dealing with the lesson.

Language.—Request the children to reproduce some of the Thanksgiving stories they have read this month. Attractive booklets may be prepared and illustrated with pictures cut from papers and catalogues.

Cause the spirit of freedom to prevail throughout the language period. Give the child opportunity for expression.

Bear in mind the rules and definitions given in the back of the Reader. Place side by side examples studied which illustrate each rule, then have the children formulate a rule that covers these cases.

Bible.—In your Bible lessons continue the use of the large map. Outline each chapter of Genesis. Require the children to learn all the memory verses. Occasionally review by writing the verses on the board, but omit words and references frequently. Let the children fill the blanks with colored chalk.

Spelling.—The new words in each lesson are printed in heavy type. Write these on the board. After examining each word carefully, have the children close their eyes and see if they can tell the form of the word just as they can close their eyes and see their home.

Words spelled correctly during the spelling period are often misspelled at other times. Provide a *motive* for learning to spell by using words frequently misspelled in your Thanks-

giving or Junior program invitations. Children may also write letters to their friends.

A booklet in the form of a turkey or a pumpkin may be used this month.

Arithmetic.—Drill, drill, drill, on the multiplication tables. Repeat the drill exercises until the class can write the answers in the required time.

Children enjoy this game: If the day's work is based on the 9's, give each member of the class a name. John may be 9×9 and he responds $9 \times 9 = 81$. Lucy may be 9×5 and she responds. They like to hold these names all day, even in their play.

Give much board work. Insist upon their doing the work neatly. Occasionally let the neatest work be left on the board until night.

Nature.—A map of the hemispheres will be needed this month. Teach few facts, but have them well learned. In learning the location of places, have children point in the right direction. Many children can locate an important city on the map, but have little idea whether it is north or south of their home town.

FIFTH GRADE—C. L. Benson

Reading.—In making the assignment give the children a glimpse of the pleasure that awaits them. If the lesson is historical, spend time enough to locate the time, circumstances, and geographical setting. Awaken curiosity and interest. By so doing you pave the way for a mastery of difficulties that may arise. Spend a few minutes in attacking difficult words and the meaning of the lesson. Use pictures and maps as references. Try to awaken the mental energy of the class as they cover a selection.

Penmanship.—Secure one of the standard handwriting scales. Three have been devised for measuring the merit of the writing of children. That of Dr. E. L. Thorndike may be secured from the Bureau of Publications, Teachers College, New York City. Dr. Leonard P. Ayres's "Handwriting Scale" may be obtained from the Russell Sage Foundation, New York City. The third, by Dr. F. N. Freeman, "The Teaching of Handwriting," can be had from Houghton Mifflin Company, Boston. The price of each of the first two scales is five cents. These are standard forms for grades five to eight. The use of the score card helps to secure interest. Mary may write poorly today. Compare her writing with the card and let her see it is quality 8. Ask her to bring it up to 9. This stimulates her more than to ask her to do better. John may have been writing at 10 and drops to 7. His specimens can be compared with the card and he quickly catches the inspiration. The work of the class can be improved if you set a reasonable standard, say 11 or 12, and ask the class to reach it on a given date.

If a pupil persists in doing unsatisfactory writing, put him in a special class until he improves, then take him out of the hospital and let him continue with his class.

The following points on position and pen holding given by Kendall and Mirick in "How to Teach the Fundamental Subjects," will prove helpful:

1. Both feet should rest on the floor.
2. The body should be well poised and inclined slightly forward.
3. Nearly all of the forearm should rest on the desk.
4. The upper and the lower arm should form a right or an obtuse angle, but never an acute angle.
5. The paper should be turned so that the forearm is at a right angle with the lines of the paper.
6. The arms should remain on the desk and the paper should be pushed forward.
7. The left hand should be kept at the left edge of the paper opposite the right hand.
8. The forefinger should be one inch from the point of the pen or pencil.
9. The thumb should be bent considerably and rest about one and one-half inches from the point of the pencil or pen.
10. The hand should be about half closed, holding the pen or pencil without tension.
11. The third and fourth fingers should be folded back a little, the ends resting on the paper, supporting the hand.
12. The hand and wrist should not rest on the paper.
13. The penholder should point over the upper arm.
14. Both pen points should rest squarely on the paper.

Drawing.—Do not make the drawing too difficult. Pupils in this grade become self-conscious about their work, and easily get discouraged. Use water colors, ink, and crayons, as well as the pencil. Children appreciate bright colors, do not criticize too severely. Take advantage of special occasions and holidays like Thanksgiving to provide material for drawing. The decoration of the schoolroom is also interesting. Leaves, berries, and branches, grain and corn, may be used not only to decorate the walls, but to furnish designs.

SIXTH GRADE—Sara K. Rudolph

Bible.—Have the children learn the names of the religious sects in Palestine when John was preaching. Get them to tell you what there was in John's dress, manner of life, and sermons that reminded the people of the Old Testament prophets. These lessons can be made very practical.

In the lesson on the baptism of Jesus, explain the meaning of baptism, and seek to arouse in the hearts of your pupils a desire

to take that step. Emphasize the preparation that must precede baptism, as brought out in the study of Lesson 42.

Recently, while looking through a library, I found "An Atlas of the Life of Christ," by John F. Stirling, published by Fleming H. Revell Company, Chicago, Ill. The price is forty cents. The book gives a clear, connected outline of the life of Christ, by means of a series of maps on which his journeys are traced. The incidents connected with his ministry are marked at the places they occurred. The maps are physical outlines, and on intervening pages are descriptions of the towns, country, and people.

Nature.—The geographical section of the book will be completed this month. The first lesson takes us to war-torn Europe. We cannot study this continent as thoroughly as the others, but much may be learned of its contour, people, and products. The other continents may be taken up as indicated by the outlines given last month.

Suggestions: Take imaginary journeys. Discuss the silk industry. Tell how Brussels carpet is made. Read about the Dutch flower gardens and dikes, the great walls of China, ostrich raising, diamond mines, and how ivory is secured and used. The stories of the ancient Greeks and Romans, the Moors and the Alhambra, and William Tell, and "The Jungle Book," by Kipling, will prove interesting. Form the class into two divisions to debate such questions as the advantage of railroads in India and China, and the value of Gibraltar and Constantinople.

Language.—On page xiii in the appendix of the Reader will be found references to lessons on the parts of speech. Have the children write the definitions and examples in their notebooks. Define common, proper, abstract, concrete, and collective nouns. Distinguish the concrete and abstract nouns by classifying them as names of things that occupy space and those that do not occupy space. Define pronoun, personal, relative, and antecedent. Write sentences, leaving blanks to be filled with the proper pronouns. Have a hunting party to find antecedents and relative pronouns. The term substantive is applied to pronouns, other words, or groups of words, that perform the office of nouns. Either find some substantives in the reading lesson or write some on the board.

Composition.—Read one or more letters to your class. Call for volunteers to read letters they have received. Discuss the order of the parts of a letter and the subject matter of the body. Notice the punctuation. Have the children write letters to friends upon topics suggested by the class. These subjects might be connected with the nature lessons. See page 69 in the Reader.

SEVENTH GRADE—C. L. Benson

Bible.—Make the study of the Bible interesting to the students. Help them to regard Paul as a hero. Give them an opportunity to name the qualities they admire in him. The following suggestions may prove helpful:

1. Use an outline map that will show the territory covered by Paul in his journeys. Have the pupils fill in the places the apostle visited, and at each place on the map enumerate the main events that occurred there.

2. This game will prove stimulating, and it can be played in a variety of ways. Follow Paul from any place, say Damascus. The teacher can say, "I am thinking of a town Paul visited that begins with D." The pupil addressed asks, "Did he meet Ananias there?" The teacher replies, "It was Damascus." Bible characters, and the events clustering about a city, a body of water, or a country, can be reviewed in this way. Chapters may be outlined, or memory verse drills conducted in this manner.

3. Encourage your pupils to learn the setting of each memory verse. This will make the verses mean so much more. It will be easier too for the pupils to learn the verses.

4. Dialogues can be worked out, pupils representing the different apostles, or the men and women associated with the apostles. The pupils will not only enter into the spirit of the lesson, but they will learn the power of expression. Visualizing the men and women of the Bible makes them real to boys and girls.

5. When you review the journeys of Paul, divide the class into two sides, and have a "spell down." One side asks a question on Paul's journey, and the opposite side answers. If a side fails to answer correctly, they lose a member. If the answer is correct, they ask a question.

EIGHTH GRADE—Myrtle E. Schultz

Opening Exercises.—Explain to your children the causes that underlie the present war, the drafts, Liberty Loans, War Savings Stamps, Red Cross, food conservation, preparations in America, facts about shipbuilding and other war preparations, Government control of railroads, etc. You can get facts by writing to the United States Committee on Public Information, Washington, D. C., The League to Enforce Peace, 70 Fifth Ave., New York City, and the Institute for Public Service, 51 Chambers St., New York City. The Bible is full of prophecies relating to just such conditions as now exist, and how important that we bring before our children the Word of God at this critical time! The older children may also be asked to report on current events, and all should be encouraged to ask questions. One morning each week might be spent very profitably in this way.

Grammar.—Before attempting to teach clauses, review simple adverbs, adjectives, and phrases that do the work of words, in addition to co-ordinate constructions. Before teaching subordinate clauses, co-ordinate clauses should be clearly understood. These reviews should not be carried on in the same way as the first presentation of the subject, but as groups and principles. In presenting a new subject, use the textbook less and concentrate attention by board work. Sometimes it will be found advisable to leave until later some of the illustrations and sentences given with a lesson. Use at first only those that very simply illustrate the principle. In connection with the figures of speech there are many good illustrations given under the miscellaneous examples in the back of the book. There are some principles in grammar that the children learn quicker by frequent use, such as the relative pronoun used as the object.

Arithmetic.—As the children study measurements, correlate manual training and carpentry with their work. Have real solids and apparatus with which to work. Ask your pupils to make the figures out of cardboard or stiff paper in such a way that they can be taken apart. Teach principles inductively as much as possible.

Geography.—Pictures are a great help in teaching geography. Children can be encouraged to clip geographical pictures from papers and magazines at home. School scrapbooks classified by States, countries, or continents can be made from year to year. Stereoscopic views add much to the interest. Other geographies, well illustrated, may be used as supplementary work. Maps are indispensable. The student can sketch the different continents and States studied. A globe should be available for every school.

Geographical problems are an interesting method to use. For example, plan a trip to Pikes Peak. Tell how we get oranges. Trace leather from the raw material to your feet. Why is Winnipeg colder than Vancouver in winter, or Minneapolis than Seattle?

Field trips to nearby streams, lakes, or mountains are valuable if handled right. The teacher should go over the ground first, and have clearly in mind what he is going to do.

Imaginary journeys interest boys and girls. Take a trip from your home town to Washington, D. C., or to a mission field. Study the route, stops, and scenes en route. Indicate the things you would take with you. Literature, pictures, and guidebooks can be secured from tourist agencies or the railroads.

MONEY paid for education is the most economical of all expenditure.—*Garfield.*

True Education

(Concluded from page 72)

himself. This is essentially all he does throughout life.

A child becomes a member of society on the day of his birth. He is therefore a social being. He bears a close physical relation to his mother, father, brothers, and sisters. The development of his mind is stimulated continually by his association with members of the family. He soon learns that there are other boys and girls and fathers and mothers besides those in his own immediate home. His social interests and relations expand in harmony with this thought. He must henceforth think, not only for himself and in relation to the members of his family, but in relation to his neighbors.

These three phases of human experience and development, the physical, the mental, and the social, are what we may term his natural and inevitable relations to life. All members of the race share these three in common. No one is without them. The fourth element in true education — the spiritual — has been purposely left to the last, not because it is least in natural order or in importance, but because it can hardly be said to be on a par with the other three. It permeates them all, and is dependent upon them all. It has to do with that mysterious relation between the human and the divine, the creature and the Creator, that is not really definable, but is unspeakably vital and powerful in its influence upon the other three elements in human experience, and indeed upon life itself. It is possible for man to grow to maturity without experiencing spiritual birth. He is wooed by the Spirit from infancy, yet until he recognizes and yields to the wooing, he cannot be said in a full sense to be spiritually born. It is the vital relation of the spiritual to the physical, the mental, and the social, that constitutes Christian education, a theme and a practice of such vital interest that it is well worthy of being represented by a system of schools and a magazine like this.

The South Lancaster Dairy Farm

(Continued from page 75)

fifty-two cows. The equipment will be first-class in every way, including good ventilation and the screening of all doors and windows. The barn as shown in the picture is not entirely completed, the vent turrets not having been put in place. The basement of the old barn will be used for box stalls for horses, colts, and calves. Room can now be provided for getting our farm machinery under cover.

We have in mind next year the erection of a model milk house entirely separate from the barn, which will also be carefully screened and kept in the best sanitary condition. We have not yet applied individual tests to our cows to ascertain their butter-producing qualities, but our farm manager has been very successful in culling out the less-productive animals and replacing them with valuable cows, so that our herd is rapidly improving in quality. We have some fine heifer calves that will soon become valuable cows.

The work of putting up this school barn has been done almost entirely by students of South Lancaster Academy. The men have put their hearts into the work, and the new barn is a very creditable piece of student labor. It well exemplifies the value of the all-round practical education which it is the desire of the academy management, as far as possible, to give to all the students who come here for an education.

Indeed, while the farm is a great convenience to the academy as a source of supplies, and while it offers the means to a number of students largely working their way, yet it is chiefly valuable as an educational factor. The knowledge of practical things is quite as necessary as the knowledge of books, and the city boys who are fortunate enough to be employed on the school farm for a year or more, are introduced to a new and very interesting world whose very existence they hardly dreamed of. They also

(Concluded on page 94)

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 Last Dance of the Leaves

RUSTLING, rattling, dancing, chasing,
Sport of every summer breeze,
Troops of leaves go madly racing,
Up and down beneath the trees.

Red and brown and tan and yellow,
How they frolic to and fro!
Now a drift and now a shallow,
Helter-skelter, off they go.

Great brown heaps the sidewalks cover,
Knee-deep in them children wade;
Overhead bare branches hover,
Cold and gray and disarrayed.

Jack Frost brings the briefest freedom,
Winter drear will soon be king,
Scurry, skip, and hurry, hurry,
Dance your fastest, wildest fling.

— Paul P. Foster, in *Youth's Companion*.

The Heavens.—As the twilight hour approaches, take your little child for a short walk. Explain to him that the sun, the moon, and the many stars overhead are all big bodies like our earth. The stars are so far away they look very small. To a little boy living on another heavenly body, our earth would look like a small star. Look in the northern part of the sky and point out to him the large dipper-shaped group of stars. This is called the Big Dipper. Near by is another smaller cluster shaped like a little dipper. In the accompanying diagram you will see the shape of the Big Dipper and the Little Dipper. The extreme end star in the handle of the Little Dipper is the polestar, or North Star. The North Star is stationary and the Big Dipper and other stars change their positions and appear to move around the North Star, as our earth moves around the sun.

The Vegetable Kingdom.—

"Autumn has come so bare and gray,
The woods are brown and red,
The flowers all have passed away,
The forest leaves are dead."

— Selected.

Call the attention of the child to the turnips, carrots, beets, parsnips, and

other vegetables. Explain to him how the plants store up food in their roots. The plants would use this food next year to produce flowers and seeds, if they were planted. Have the child notice the size of each, the shape, color, rootlets, and other features of each vegetable in turn, then compare different vegetables. Make a drawing of each and color it.

Try to feed a cat, dog, or other pet a raw potato or one of the vegetables studied, to determine if the animals will eat the raw vegetables.

Have the child make a list of the foodstuffs grown in the garden and neighborhood.



The Animal Kingdom.—Children of all ages are interested in birds. At first, study individual birds. Obtain the bird experiences and observations of the chil-

dren during the summer. Have your child name and describe some bird he knows. The National Association of Audubon Societies, 1974 Broadway, New York City, publishes educational leaflets on about one hundred birds. Each leaflet has four pages of descriptive matter, a separate colored plate, and a separate outline on drawing paper, which is to be colored. These leaflets retail at three cents each. You will find these leaflets very valuable for your child.

Observe the pictures of several common birds, and learn the name of each. Make a list of the food birds eat. Notice the feathers, and state the purposes they serve. Is a bird's tail any help to the bird? What differences have you noticed in the bills of birds? Why the differences? What differences in their feet? If you have chickens and ducks, study them and see if the child can account for the differences in shape, bills, and feet.

Make a list of the birds in your neighborhood.

The South Lancaster Dairy Farm

(Concluded from page 92)

become conscious of new powers and possibilities within themselves. The result is that their value to the denomination is greatly increased. "The knowledge they have obtained in the tilling of the soil and other lines of manual work, and which they carry with them to their fields of labor, will make them a blessing even in heathen lands."

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OUR readers will be pleased to learn of the following new subjects that are now being offered by the Correspondence School:

Bible Readings.—How to prepare and conduct them. For lay members and laymen's Bible classes. Recommended by the Home Missionary and Young People's Departments of the General Conference. Ten lessons.

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The value of studying at home is mentioned in another column.

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