

# THE YOUTH'S INSTRUCTOR

REMEMBER NOW! THY CREATOR IN THE DAYS OF THY YOUTH!

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## IN A SCULPTOR'S STUDIO



SHOULD you ever find your way into the studio of a sculptor, and have the privilege of looking about you there, some things will be revealed to you that you never dreamed of; and if you stay long enough, you will know the secret of how many great statues are begun.

Here and there about the studio you will notice large boxes of common clay. This substance is used in making the models from which the larger figures are wrought out later on. Clay was the first material used in this work; but wax, though more expensive, is now coming into common use among sculptors. The clay has to be kept well wet, so that it may be easily worked, and to keep it from drying and crumbling.

The sculptor, or modeler, first makes, of wood, wire, and iron, a rough frame, or armature, which shall correspond in some degree to the greater bones of the body, human or beast, whichever it is the intention to represent. The skeleton must be of great strength, and the wires connecting the different parts must be so affixed that the limbs can be moved into

any desired position. Then the clay, or wax, is stuck and pounded on in large lumps, until the body of the figure is about the size that the modeler intends to work upon. Afterward comes the delicate task of modeling the curves and outlines, which must correspond as exactly as possible with photographs, as well as with the many peculiarities of expression, habit, pose, etc., of the person or object represented. This requires great care, and in the doing of it the genius of the sculptor is revealed. When the model is finished in every detail, it generally stands from one to two feet in height; and if accepted by the committees who have the direction of the work from beginning to close, it will thereafter be the basis of all the sculptor's work on that particular figure.

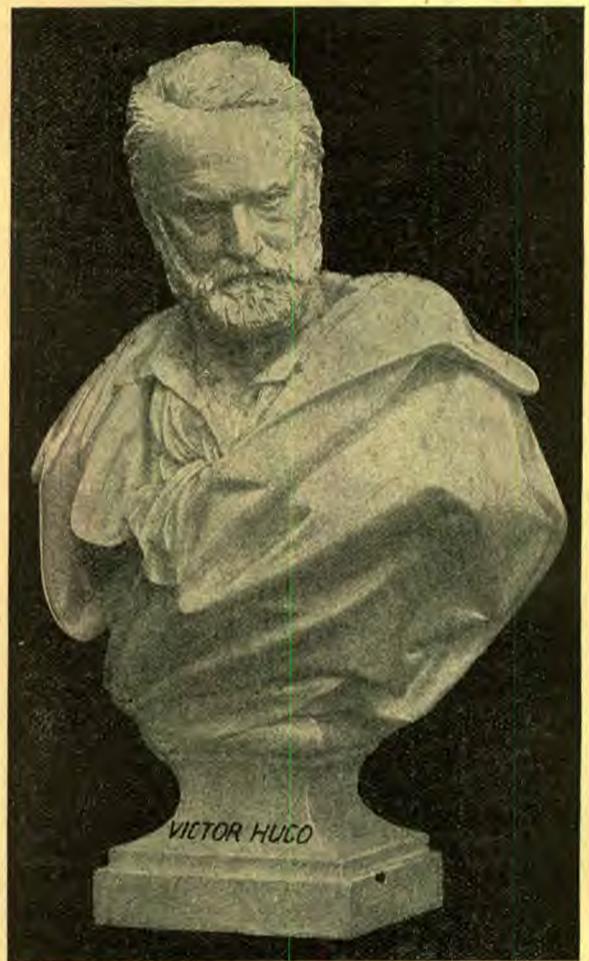
Now the work of the mechanic begins. The small model is made all over again, but on a gigantic scale throughout, making the measurements of height and girth conform to those required. The sculptor usually provides himself with an assistant who is handy with a blacksmith's anvil and carpenter's tools, and who is also an expert caster, and in some cases a modeler. Great joists now come into play, and there is built a heavy iron armature for the body and limbs of the figure—armature which must be of such strength as to bear many tons' weight in the building of heroic statues. The sculptor directs the whole of this rough, heavy labor, as well as the finer work that is to come later on. This calls for the finest judgment and foresight in the adjustment of the various parts that must balance so well the whole. Then comes the application of the clay,—clay, not wax, now, in any case. Day by day the labor goes on, the mass increasing in bulk as the work strengthens and develops. As the model takes shape, the care and anxiety of the sculptor continue, and inspiration burns within him as he pictures the possibilities of outline and beauty that will soon expand beneath his fingers.

Each handful of clay is applied with intelligent accuracy, and the whole mass is moistened at short intervals, to prevent its drying up and breaking; for clay is about as absorbent as sand. In spite of every precaution, accidents are likely to happen that necessitate doing the great work all over. Thomas Ball's equestrian statue of General Washington, which stands in Boston's Public Garden, and William Ordway Partridge's statue of General Grant, in Brooklyn, are two notable instances in point. The gigantic clay models of both these statues were nearly completed; and though in careful hands, at an unfortunate moment large portions of the mass fell away from their frames with a crash, thus undoing in an instant the toil of many months. If the sculptor or his workmen happen to be near the figure at such

a time, serious accidents to human life are threatened. But if all goes well, the statue soon becomes almost human in expression, as well as herculean in proportion.



STATUE IN BRONZE OF SCHILLER



MARBLE BUST OF VICTOR HUGO

The work in clay finished, there follows the difficult task of casting, or taking an impression, or mold, of the whole model, in plaster. Of course the entire figure could not be molded at once. The work is done by portions; and the process is called the thread, or piece-mold process, of casting. The part to be cast first is selected, and a piece of common strong pack-thread is laid along the surface of the clay. The liquid plaster is then poured over both clay and thread, with the ends of the thread protruding. As soon as the plaster has dried a little, the thread is lifted away by both ends, thus dividing the plaster, and rendering it less likely to be broken than if it were one large piece. The operation is repeated until the entire figure has been molded.

This finishes the task of the sculptor, but it does not by any means complete his triumph. From his workshop the molds are packed with the greatest care and attention, the eye and the voice of the sculptor overseeing and directing the smallest details. The cast is then shipped to some bronze foundry, where the founders have made ready their furnaces for the final work of casting in bronze. Into the plaster molds, now hardened to the solidity of rock, is

run the liquid bronze, which takes the shape that grew in the brain of the sculptor months before. The plaster is pounded and cut away; the various parts are brought together, and bolted, so as to withstand the storms and changes of years; and the statue, completed, is ready to be placed upon its pedestal, and unveiled before the world.

FRANK WALCOTT HUTT.

#### LITTLE AND MUCH

It matters little where I was born,  
Or if my parents were rich or poor;  
Whether they shrank at the cold world's scorn,  
Or walked in the pride of wealth secure;  
But whether I live an honest man,  
And hold my integrity firm in my clutch,  
I tell you, brother, plain as I am,  
It matters much!

It matters little how long I stay  
In a world of sorrow and sin and care;  
Whether in youth I am called away,  
Or live till my bones and pate are bare;  
But whether I do the best I can  
To soften the weight of adversity's touch  
On the faded cheek of my fellow man,  
It matters much!

It matters little where be my grave,  
On mountain or plain or in the sea,  
By purling brook or 'neath stormy wave,  
It matters little or naught to me;  
But whether the angel Death comes down,  
And marks my brow with his loving touch,  
As one that shall wear the victor's crown,  
It matters much!

— Author Unknown.

#### GOLD

GOLD is the only metal of a yellow color, and, when pure, is the most malleable of all. One grain may be beaten into leaves that cover a space of fifty-six square inches, and are only one two-hundred-and-eighty-two-thousandth of an inch thick. Gold is extremely ductile. A single grain may be drawn into a wire five hundred feet in length; and an ounce of gold, covering a silver wire, can be extended more than thirteen hundred miles. Gold is the least volatile of metals. Gasto Claveus kept an ounce of pure gold constantly melted, in a state of fusion, for two months, without the slightest loss in weight. If alloyed, however, the gold rises with the fumes of the alloy, and loss results. If electricity is passed through gold beaten into leaves, or fine wire, the metal will be dissipated.

Gold is found chiefly in the metallic state, occasionally in combination with other metals. It occurs sometimes as a crystal, but oftener in irregular forms, which, when large, are termed "nuggets." If found in pieces weighing less than one-fourth to one-half ounce, the whole is called "gold dust." With the exception of the larger specimens, gold is usually found in bean-shaped pieces, or in some flattened form, the smallest particles being scales, which sink very slowly in a rapid current. These form the "float gold" of miners.

Russia has the largest gold deposits of any country of the Old World. On the Atlantic slopes of North America, gold is most common on the Chaudière River, near Quebec, and in Nova Scotia. On the Pacific Coast gold is found in all the region from Mexico to Alaska. In Africa the chief gold-bearing regions are on the West Coast; and Australia has a large area of gold deposits on her east and south coasts.

Deposits of gold are of two classes,— "veins" and "placers." In the placer, or alluvial, deposits the metal is generally found in a water-worn condition, and the richest deposits are on the bed-rock. In earlier days

these alluvial deposits were washed out in pans, — circular dishes about thirteen or fourteen inches in diameter, made of sheet-iron, with sloping sides. In these the miners placed the pay dirt, and by shaking it over a stream of water, finally secured the gold it might contain. The "cradle" and the "tom"—larger and improved methods of washing—are now used; and where water is plentiful, as in California, the "sluice" is employed. In auriferous soils, jets of water are used by the so-called hydraulic system, the jets playing upon the bank, and carrying the dirt into sluices, where the gold is separated.

When gold is found in rock, the stones are first reduced to powder in a crushing-mill, and afterward the gold is extracted by using mercury.

In regard to the refining process used for gold, Mr. D. I. Byers, one of the principal traveling representatives of gold-metal refiners, made the following statement to a reporter on one of the large city dailies:—

"Probably as little is known about the business in which I am engaged as almost anything you could mention, and still it is intensely interesting. Very few persons know anything about the details connected with the refiners' business. In the first place the sweepings from the floors of all jewelry establishments are carefully saved, and the water which the employees use to wash their hands is drained into barrels. Every so often the sweepings and water are sent to the refiners. The water is allowed to settle, the residue is put with the sweepings, and then the whole mass is subjected to intense heat, which reduces it to ashes. The ashes are crushed as fine as flour, and then smelted, when the metals are recovered by a chemical process. Thousands and thousands of dollars are saved each year from the refuse around jewelry shops.

"A big business in refining comes from worn-out jewelry, which is generally taken in exchange for new goods. The pure metals are all separated, and then sent to the manufactory to be turned into new goods. Jewelry is turned over and over, and worn again and again in different forms, hundreds of times. The total loss of gold amounts to very little. It is no extravagant statement to say that some of the finest jewelry worn in Cleveland to-day may have been worn in some form two thousand years ago. Perhaps some Cleveland person is wearing some of the same gold jewelry worn by Cleopatra.

"Many are the forms of handling gold. First, there is the pure metallic state; then there is 'flour gold,' as fine as dust. Gold is beaten into leaves so light that it can be blown about like a feather. Then again it is spun into a wire almost as fine as a spider's web. It is also made into a liquid, which is largely used by photographers for toning purposes.

"The help about a refiner's establishment must of necessity be of the very best. It is not only skill that is required, but the slightest bit of carelessness is not tolerated. A careless man, for instance, might turn away a half-barrel of apparently worthless water, which would mean a loss of hundreds of dollars."

W. S. CHAPMAN.

WHEN all treasures are tried, truth is the best.— *William Langland.*

WE can be thankful to a friend for a few acres or a little money; and yet for the freedom and command of the whole earth, and for the great benefits of our being, our life, health, and reason, we often look upon ourselves as under no obligation.— *Seneca.*



#### REVEAL THYSELF TO ME

FATHER, reveal thyself to me,  
As lovely as thou art;  
Let light from thee now drive away  
All darkness from my heart.  
I long to know that only thou,  
Where'er I go, dost guide;  
Since thou hast promised thou wilt be  
Forever by my side.  
Teach me to know thy loving voice,  
And how and where and when  
It speaks to me, lest I should trust  
In feeble words of men.  
And lest I should in blindness doubt  
The words that come from thee,  
Father! my heartfelt prayer is this:  
Reveal thyself to me.

L. H. CHRISTIAN.

#### MARY'S OFFERING

##### II

THE commendation of Christ after the condemnation of the disciples was of inexpressible value to Mary. Christ could appreciate the gift as the expression of Mary's love, and her heart was filled with peace and happiness.

The disciples did not take in the many lessons given in the Scriptures in regard to the faith that works by love and purifies the soul; and the work of Mary was just the lesson they needed to show them that to be more demonstrative in their appreciation of their Lord, would be wholly acceptable to him. He had been everything to them. They did not realize that soon they would be deprived of his presence, that soon they could offer him no token of their appreciation of his love. The loveliness of Christ, separated from the heavenly courts, living a life of humanity, was never understood nor appreciated by the disciples as it should have been. He was often grieved because they did not give him that which he should have received from them. He knew that if they were under the influence of the heavenly angels that accompanied him, they, too, would be inspired with zeal and true devotion, and with entire consecration to the mind and will of God. They would regard no offering of sufficient value to declare the heart's spiritual affection. Their after-knowledge helped them to realize how many things they might have done for Jesus, expressive of the love and gratitude of their hearts, while they were near him, enjoying his counsel. When Jesus was no longer with them, and they felt as sheep without a shepherd, there were many things they began to understand. They saw how they might have offered him attentions and shown him favor on many occasions. Oh, if they could have taken it all back—this censuring, this presenting the poor as more worthy of the gift than Christ! They felt his reproof keenly as they took from the cross the bruised body of their Lord.

The same lack is evident in our world to-day. But few appreciate all that Christ is to them. If they did, the great and beautiful love of Mary would be expressed—the anointing would be freely bestowed. The expensive ointment would not be called a waste.

Jesus approved of Mary's gift as a testimonial of her love for her Master, who was constantly working in behalf of others, doing good to the poor, and speaking words of comfort to the oppressed. Those who have

caught the inspiration of the love that will exist in every heart in the family of the redeemed host, will enter into the joy of their Lord. The spirit of peace and heavenly joy will fill the hearts of those who can appreciate the heavenly Gift. Christ, the world's Redeemer, fills their hearts with love. By faith they are made one with Christ, and their hearts are drawn out to him. They live in Christ, and Christ in them. Nothing is too costly to give him. No self-denial, no self-sacrifice, is too great to be made for his sake.

The words spoken in indignation, "To what purpose is this waste?" brought vividly to the mind of Christ the greatest sacrifice ever made, — the one that could not be surpassed, — the gift of himself to be the propitiation for the sins of a lost world. His entire life had been one of self-denial and self-sacrifice. Declaring his mission in Galilee, he said: "The Spirit of the Lord is upon me, because he hath anointed me to preach the gospel to the poor; he hath sent me to heal the broken-hearted, to preach deliverance to the captives, and recovering of sight to the blind, to set at liberty them that are bruised, to preach the acceptable year of the Lord." The Lord would be so bountiful to his human family that it could be said of him that he could do no more. In the gift of Jesus to the world, he gave all heaven. His love is without a parallel. It did not stop short of anything. And having given us his only begotten Son, will he not with him also freely give us all things?

If left to be judged from a human point of view, such a sacrifice was a wanton waste; and well might the question be asked, Why does the Lord show such waste, such extravagance, in the multitude of his gifts? Well may the heavenly host look with amazement upon the human family, who cling to their rags of self-righteousness, and refuse to be clothed with the robe of Christ's righteousness, — refuse to be uplifted and enriched with the boundless love expressed in Christ. Well may they exclaim, Why is this great waste?

The supposed prodigality of Mary is an illustration of the method of God in the plan of salvation; grace and nature, related to each other, manifest the ennobling fullness of the source from which they flow. To human reason the whole plan of salvation is a waste of mercy. Self-denial and whole-hearted sacrifice meet us everywhere. But they are provided to accomplish the restoration of the moral image of God in man. The atonement for a lost world was to be full, abundant, and complete. Christ's offering was exceedingly abundant, reaching every soul that God had created. It could not be restricted nor measured so as not to exceed the number who would accept the great gift. All men are not saved; yet the plan of salvation is not a waste because it does not accomplish all that its liberality has provided for. There must be enough and to spare.

In the breaking of the alabaster box, in that the ointment filled the whole room with its fragrance, we have a representation of the sacrifice of Christ, which was to fill the whole world with the fragrance of infinite love. This action of Mary is never to lose its fragrance. This, which the disciples called waste, is repeating itself a thousand times to the susceptible hearts of others, telling ever the story of the abundant love of God for a fallen race.

MRS. E. G. WHITE.

"LIVE nobly in these noble times! It matters little whether your field of activity be great or small."



#### DEVONSHIRE POPPIES

HERE, one peers lonely through a gate —  
Pink-coated huntsman gone astray;  
There, turbaned courtiers of state  
Are blurred in carnival array!  
As scarlet acrobats they run  
To vault the hedgerow's mystery, —  
Leaping fantastic in the sun,  
A blaze of nature's jugglery.  
Like Highland troopers others pass,  
With kilt of flame and tunic green;  
Their bonnets blowing in the grass,  
Their piper's skirl a lark unseen.  
Will-o'-the-wisp of summer noons,  
They flit mid haymakers at rest;  
And up the path of harvest moons,  
Are lost o'er sunset's gleaming crest!

— *Youth's Companion.*

#### 17 — MALLOW



THIS is such a common weed, underfoot almost everywhere, that it seems unnecessary to give more than a partial, rough sketch of a leaf, flower, and seed-case.

This plant is what is called in botanical terms "procumbent;" the stem lies upon the ground, and so the plant, with its characteristic leaves, hugs the soil quite closely.

There is another species, with an erect stem, which is called High Mallow. The Marsh Mallow belongs to this same order. It has thick



roots, which abound in mucilage, from which was formerly made the confectionery called by the same name as the plant. It was somewhat expensive. Later this confection has been made with gelatin, or some other similar substance, as a base, and consequently it is not so expensive, delicious, nor healthful.

The flower of the Common Mallow is whitish, veined with lavender. The seed-pods are very peculiar, and will help you in identifying the plant. The drawing shows the appearance of one of these.

The leaves are heart-shaped, crenated, and crimped, and lie quite close to the ground.

L. A. REED.

#### SOME TROPICAL PRODUCTIONS

WHEN spring is giving us its parting days, the air is often filled with a savory odor that comes from groups around the common open cooking fires of our island homes. As one passes these fires, he smells burning oil, and sees a great smudge, ending in a sudden fierce blaze. When this burns down, as it soon does, there will be a rapid poking among the embers, and a pulling out of blackened, kidney-shaped nuts, which are cracked, and the white kernels taken out, and eagerly eaten. These are the cashew nuts, which grow at the lower end of the fruit, instead of inside it, as you can see by the illustration. The fruit smells like strawberries, is pear-shaped, spongy, and tough, and its juice, which is somewhat acid, is the only portion used. The skin of the fruit is smooth and glossy, mottled with red and yellow.

The nut has an outer and an inner covering, and between the two is a thick black oil, which oozes out when the nut is roasting. It is this that burns, and gives off such an odor. This oil will blister the skin, and indeed it is sometimes used in the treatment of corns, warts, and sores. The nut meat tastes not unlike almonds. Before it is fully matured, the kernel is filled with a sweet, milky juice.

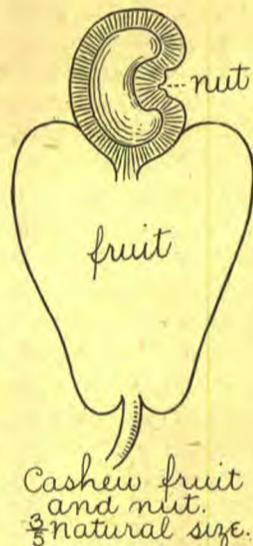
The tree itself is a sprangly affair, having medium-sized, egg-shaped, reversed leaves growing near the end of the branches. The flowers grow in clusters on the end of the branch, and are small and inconspicuous. The bark produces a milky juice, which is sometimes used for marking linen. The wood is red and rather hard.

The star-apple is another fruit peculiar to the tropics. It is about the size of an apple, quite round, with a smooth green or purple skin. Usually it has ten parts, though each part is not always supplied with a seed. In shape and size the seeds are like a butter-bean, — black, with a white eye. The pulp is purplish-white, very sweet, with a sticky, milky juice, which sends a woe upon the man with a mustache, as it will not wash off, but must wear off. The trees are tall and graceful, with long, slender branches. The pretty, pointed leaves are dark-green above, and of a beautiful, glossy, golden or copper color beneath. Some very young leaves are silver-lined instead. You can easily imagine that one of these trees on a sunny slope presents a beautiful sight when fanned by the breeze.

Driving along, one often sees tall, sturdy, pear-like trees hanging full of fruit that grows straight out from the trunk or limb, and often as large as a gallon pail. The fruit is green in color, and is rough outside, like an osage orange. The flesh of the fruit is white and sweet, the seeds are large and black, and the kernel is often eaten roasted or boiled. This is the "jack-fruit."

A fruit similar in appearance and size is the "sour-sop," which, however, grows in the ordinary way; it is sour, and is full of melon-like, brown seeds. This fruit is covered with soft, thorn-like projections. The juice is often used to make a drink similar to lemonade.

The "sweet-sop" and the "custard apple" are two sweet fruits, the flesh of which is soft



and custard-like. The seeds, of which there are many, are small. The fruit of both is about the size of a large orange.

The finest of all tropical fruits, in the opinion of many, is the naseberry. This is round, or egg-shaped, ranging in size from an egg to an apple, and having a thin, rough, brown skin. The flesh is somewhat pinkish, and the few seeds are quite similar in size and shape to those of the star-apple. When well matured and thoroughly ripened, the fruit has a delicious flavor, and is very sweet and rich.

I must not leave from my list, which might be made of almost indefinite length, the tamarind and the genisaro, or guango, as it is commonly called. Both fruits are leguminous in character, as are many of the trees here.

The tamarind is a large tree, pinnate-leaved, with fine leaflets. When hanging full of pods, it is very beautiful. The pods are golden-brown, thin, and brittle-shelled, the seeds covered thickly with a very sour brown pulp. This is used to make a beverage, and is sometimes packed in sugar, and sold for this use. A sauce is also made from it. The wood is very tough. The schoolboy dreads a tamarind switch; and criminals are sometimes sentenced to be flogged with tamarind rods.

Genisaro pods are long and black, the seeds covered with a sweet pulp. Horses and cattle feed upon them, the trees being often planted in pastures for both food and shade. The leaves are similar to those of the tamarind, though not so small. The leaves of this tree go to sleep at night. This makes it look, in the early evening, as if it were dying.

The divi-divi is another leguminous tree, which in appearance resembles the tamarind, though it is not so tall, and is more spreading. The leaves are smaller, and slightly sensitive to the touch. The pods are small, brown, and curled up almost like a snail's shell. The tree is cultivated for tanning purposes.

ANNA AGEE HALL.

#### OUR SUMMER SCHOOL

MOUNTAINS strong, serene, and steadfast;  
Ocean mirroring the sky;  
Lilies giving grace and sweetness,  
Just their world to beautify;

Singing brooks that never loiter  
On their way to swell the seas;  
Pines with fingers pointing heavenward;  
Warbling birds, and thrifty bees;

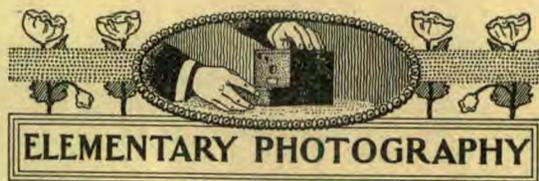
Ferns content to deck, unnoted,  
Some half-hidden woodland pool,—  
All are teachers, blessed teachers,  
In our restful Summer School.

—Emma C. Dowd.

#### AN ORIOLE'S VENGEANCE

A LADY who was one day watching a pair of redstarts as they worked in a tree, was startled by a violent commotion that arose in the shrubbery near by. Catbirds screamed, wrens scolded, and the robins shouted, "Quick! quick!" with all their might. A squirrel was dragging a baby catbird by the leg from its nest, and all the birds had come to help make a fuss about it, including a Baltimore oriole. The screaming and the swish of wings as the birds darted about made the little squirrel abandon its prey, and then the commotion subsided as quickly as it had risen. All the birds but the oriole went about their business elsewhere. The oriole had not said a word so far, and, beyond countenancing the hubbub by his presence, had had no part in it. The squirrel, having dropped the baby catbird, cocked itself upon a limb, and began to chatter in a defiant way, while the oriole sat not far away, looking at it, but doing nothing else.

In a few moments the squirrel left its seat, and ran out on the limb on which it had been sitting, until it had to use care to keep its hold. Then came the oriole's opportunity. Flashing across the space, he struck the squirrel in one eye with his sharp, pointed beak, and then, turning instantly, struck the other eye in like manner. Quivering with pain, the squirrel let go the limb, and dropped to the ground, where it rolled and struggled about, apparently in the throes of death. The oriole flew away to his favorite elm, where he sang in his most brilliant fashion. The lady put the squirrel out of its misery, and then saw that the oriole had destroyed both eyes.—*Boston Journal.*



#### THE STEREOSCOPE

IT is a common error to suppose that the two pictures that make a stereoscopic slide are duplicates, and that their enhanced beauty, when seen in the instrument, is caused by the slight magnifying power of the lenses.

I once attempted to make a stereoscopic slide by mounting, side by side, two prints from the same negative. The pictures combined beautifully in the stereoscope; and though I could see that they were in some way inferior to my other slides, it was some time before I knew that they were not stereoscopic.

The principle upon which the stereoscope is constructed may be illustrated by a few simple experiments.

Look out of the window, and with one eye closed notice the relative positions of the sash and some object outside. Then without moving the head, close the open eye, and open the other. You will observe that the relative positions of the objects have changed considerably. The reason is that the objects are seen from two different points. When both eyes are open, a different image is formed on the retina of each eye, and these images are combined in the brain to form a third.

This principle holds true in stereoscopic photography. Two pictures are taken from different points of view. By the aid of the stereoscope an image of each is formed on the

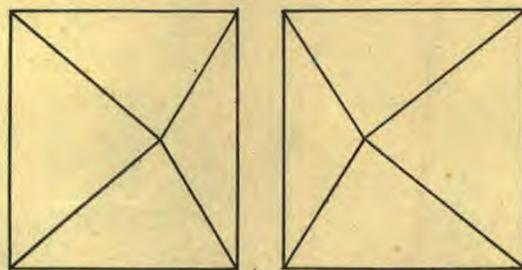


Diagram Illustrating the Principle of the Stereoscope

retina of the corresponding eye; and when the brain combines these to form a third, which is unlike either, we have the true "stereoscopic effect." The drawing will help make this plain.

You may not be able to tell what this drawing represents. But separate the two figures by holding a piece of cardboard or paper between them so that each eye will see but one, and they will gradually melt into one figure. If you are successful with this experiment, you will not need to be told that you are looking down on a pyramid. If the figures will not combine, there is strong probability that you need glasses.

Stereoscopic photographs are usually taken

with a camera having twin lenses and a partition. It is really a double camera, with which two exposures are made simultaneously. Such an instrument is necessary if the picture includes moving objects; but many beautiful views may be secured with an ordinary camera and one lens.

The size of the camera used will make no particular difference. If it is larger than four by five inches, it will be well, for the sake of economy, to provide kits, and use smaller plates. If it is smaller than three by three inches, the prints will be smaller than the usual size, but that will not matter if they are mounted the proper distance apart.

Two negatives will be required; and they must be taken from points about three inches apart, measured at right angles with the direction of the object photographed.

The most simple way to accomplish this is to set up your tripod, and make one exposure, in the ordinary manner. Then move each tripod leg about three inches to one side. If the object is near, it may be necessary to loosen the tripod screw, and slightly rotate the camera, in order to include in the second negative the same field that the first had.

If you take many stereographs, it will be advisable to fix a short board on your tripod head, so arranged that the camera may be moved the necessary distance without moving the tripod. There are several methods of accomplishing this, so simple that they need not be described: I will leave you to study out one.

Strong contrast does not give a pleasing effect in the stereoscope; so if your subject is "contrasty," it is well to overtime the negatives.

The developing, printing, and toning are carried on in the usual manner; but when it comes to mounting, you must be careful not to transpose the pictures, or you will have a "suedoscopic," instead of a stereoscopic, slide.

If the prints are made on paper a little larger than required, they may be matched more accurately when they are trimmed than if paper of the exact size is used.

Trim the bottom first. Then place the prints in the position they should occupy on the mount, and bring them together until some object in one is two and three-fourths inches from the same object in the other. The prints will overlap in the middle, and they may be trimmed simultaneously by making one cut with the trimming-knife straight down through both. The outside and top may then be trimmed to any size preferred. The usual size of a stereoscopic slide is three by six inches; that would make each print three by three inches.

J. EDGAR ROSS.

**Copper by Electrolysis.**—The old method of obtaining deposits of copper by electric decomposition of its solutions has been steadily gaining ground, and it is estimated that the pure copper produced in this way now amounts to five hundred tons daily. An early difficulty was the slowness of the process, a weak current being necessary to insure a smooth and adhering deposit. Various devices have made it practicable to work with more powerful currents, and in a given period several times as much copper may be deposited as was obtained from a similar bath ten years ago. One means of overcoming the tendency of the rapidly made deposit to become granular was the continuous passing of an agate burnisher over its surface. An oiled sheepskin was then used as a burnisher.



AN ADVENTURE  
AS KATIE TOLD IT

ACROSS the field to Grandma's house, that's where we were going,  
To see the lambs and chickens there, and watch the men a-mowing.  
We crossed the narrow foot-bridge high, both walking, oh! so careful—

I had to hold Dorinda's hand, she was so very fearful.  
We went across the stony-patch, and through the berry-thicket,

And crawled right through the meadow-fence, beneath the broken picket.

But oh! before we reached the gate a fearful monster met us—  
We turned and ran right home again, for fear that he would get us!

AS THE TURTLE TOLD IT

I have a fearsome tale to tell; 'tis almost past believing;  
I hesitate to speak of it, lest you think me deceiving.

The rest of life I'm going to live here in this bog contented—  
To think of ever leaving it, I must have been demented.

But listen to the chance that fell a too ambitious turtle:  
I left the bog, I climbed the bank, and passed beneath the myrtle,—

A long and toilsome journey. Then two fearful monsters met me—  
I turned and hurried home again, for fear that they would get me!

ELIZABETH ROSSER.

WATER TURNED INTO WINE

WHEN you have heard of the wonderful miracle that Jesus did at the marriage feast in Cana, have you not sometimes wished that you could have sat at that table, and tasted "the good wine" that he provided near the close of the feast?

Yet you have often sat at your own table, and without a thought of him, have tasted water that has been changed into wine by his power! Are you surprised to hear that you have done this, and wondering how it can be? Let us see.

Every miracle that Jesus did was, like the wonderful works of God when he led his people through the wilderness, to teach us his ways—to open our eyes to see what he is doing for us all the time.

When he opened the eyes of the blind man, it was to show that he is "the Light of the world," the One who gives light and sight to all the people in the world.

When he called Lazarus from the tomb, he was showing that he is the Resurrection, because he is the Life, the One in whom we all "live, and move, and have our being."

When he fed the five thousand with the multiplied bread, he was teaching that all the bread in the world comes from him, whose power multiplies the grain, and gives the yearly harvest.

When the water gushed from the dry rock in the wilderness, God was teaching that all the water in the world flows from him, "the Fountain of living waters."

And as Jesus looked upon the water that he had given, and changed it by the power of his glance into rich, sweet wine, like the fresh juice of the grape, he was teaching that it is his presence that makes the earth bring forth and bud, and the light of his countenance that makes that mysterious change in the water that the plant draws from the soil, changing it into "the new wine" that "is found in the cluster."

For you know that it is the influence of the sunlight that makes this change. By its power the juices of the fruit are sweetened and enriched, and changed into life-giving food. And this light is a gleam from the glory of his face who is "the Light of the world."

To-day, as at the wedding feast, Jesus looks upon the water stored in the little vessels he has provided for it,—the beautiful fruits hang-

way showing forth his glory. "Do you wish to see the glory of the Lord? Then learn to see him always and everywhere, by his very presence, from the fullness of his own life, providing for the needs of all that he has made. Then you will know that where he is (and he fills heaven and earth) there can be no want, no lack; for in him all fullness dwells.

"For that thy name is near thy wondrous works declare." "And they that know thy name shall put their trust in thee."

EDITH E. ADAMS.

A MOTHER'S LOVE

WE have a fine, high-bred bay mare, that we call Beauty. Last Thursday night her little colt, which looked just like her, was kicked by another horse; and though we thought it would soon be better, it grew worse and worse, and night before last it was too weak to stand up. This seemed to distress Beauty. She would smell of it, and then walk toward us, and back to the colt, and wait for us to help it up. Yesterday morning it had the lock-jaw, and died.

Beauty would walk a little way from it, and then come back and lick it and caress it again, and in many ways try to show her great love for it. We could not get her to leave it.

This morning we buried the dear little colt; and when Beauty saw we were going to take it away, she made so much noise that papa let her loose, and she followed just behind it all the way. When they put it in the ground, she reached down to touch it again with her nose; and when papa began covering it with earth, she raised her head, and almost screamed, and ran to the pasture to call the other horses, and then raced back as fast as she could. In every way she could she tried to make us to know she could not have her baby covered up there. She stood and mourned for a while, then walked round and round the grave, and then started to get the other horses. We let them out; and she came to the grave, and pawed, and tried

to tell them to help her. When they went into the barn, she would walk in where they were, then out to the grave, then back again.

Does not this show that dumb animals love their babies, and grieve about them as much, in their way, as human beings do in theirs, when something hurts them?

BESSIE STEEN.

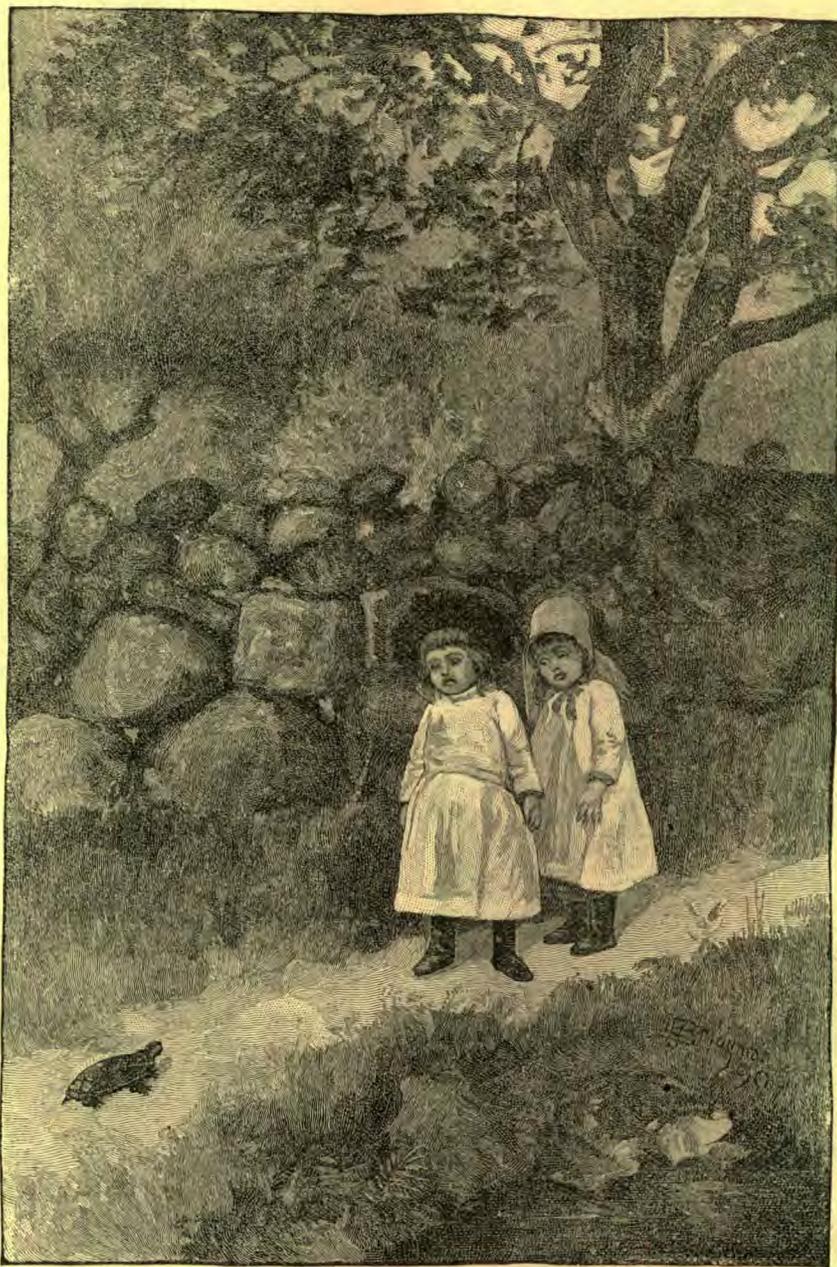
Aged fourteen years.

A SPELLING-BEE

"I'M going to have a spelling-bee to-night," said Uncle John, "and I'll give a pair of skates to the boy who can best spell 'man.'"

The children turned, and stared into one another's eyes.

"Best spell 'man,' Uncle John! Why, there's only one way!" they cried.



"A FEARFUL MONSTER MET US"

ing on the trees and bushes,—and in the light of his countenance the water blushes into wine. So in the growth and ripening of the fruits year by year, we can see a repetition of the miracle at Cana,—the changing of water into wine.

As you taste the sweet fruits that Jesus is thus providing for you continually, and are refreshed and strengthened by their juice, think of the Fountain of living waters, and the Light of the world, and this wine will seem to you just as wonderful and as sacred as that which he provided for the wedding feast.

In his account of this miracle John says, "This beginning of miracles did Jesus in Cana of Galilee, and manifested forth his glory." In doing this he was showing the people his glory. But he is, as we have seen, doing the same thing for us all the time; so he is always in this

"There are all sorts of ways," replied Uncle John. "I leave you to think of it a while."

And he buttoned up his coat, and went away.

"What does he mean?" asked Bob.

"I think it's a joke," said Harry, thoughtfully; "and when Uncle John asks me, I'm going to say, 'Why, m-a-n, of course.'"

"It's a conundrum, I know," said Joe; and settled down to think.

Time went slowly to the puzzled boys, for all their fun that day. It seemed as if that after-supper time would never come; but it came at last, and Uncle John came, too, with a shiny skate-runner peeping out of his great-coat pocket.

Uncle John did not delay. He sat down, and looked straight into Harry's eyes. "Been a good boy to-day, Hal?"

"Yes—no," said Harry, flushing. "I did something Aunt Margaret told me not to do, because Ned Barnes dared me to. I can't bear a boy to dare me. What's that to do with spelling 'man'?" he added, half to himself.

But Uncle John turned to Bob, "Had a good day, my boy?"

"Have n't had fun enough," answered Bob, stoutly. "It's all Joe's fault, too. We boys wanted the pond to ourselves for one day; and we made up our minds that when the girls came, we'd clear them off. But Joe——"

"I think this is Joe's to tell," interrupted Uncle John. "How was it, boy?"

"Why," said Joe, "I thought the girls had as much right on the pond as the boys. So I spoke to one or two of the bigger boys, and they thought so, too; and we stopped it all. I thought it was mean to treat girls that way. Don't you?"

There came a flash from Uncle John's pocket. The next minute the skates were on Joe's knee.

"The spelling-match is over," said Uncle John, "and Joe has won the prize."

Three bewildered faces mutely questioned him.

"Boys," he answered, gravely, "we've been spelling 'man,' not in letters, but in acts. I told you there were different ways, and we've proved it here to-night. Think over it, boys, and see."—*Selected.*

#### THE LITTLE BROWN WREN

THERE'S a little brown wren that has built in our tree,

And she's scarcely as big as a big bumblebee.  
She has hollowed a house in the heart of a limb,  
And made the walls tidy and made the floor trim  
With the down of the crow's-foot, with tow, and with straw,

The coziest dwelling that ever you saw.

This little brown wren has the brightest of eyes,  
And a foot of a very diminutive size.  
Her tail is as trig as the sail of a ship;  
She's demure, though she walks with a hop and a skip;

And her voice—but a flute were more fit than a pen  
To tell of the voice of the little brown wren.

One morning Sir Sparrow came sauntering by,  
And cast on the wren's house an envious eye;  
With a strut of bravado and toss of his head,  
"I'll put in my claim here," the bold fellow said.  
So straightway he mounted on impudent wing,  
And entered the door without pausing to ring.

An instant—and swiftly that feathery knight,  
All tousled and tumbled, in terror took flight;  
While there by the door on her favorite perch,  
As neat as a lady just starting for church,  
With this song on her lips, "He will not call again,  
Unless he is asked," sat the little brown wren.

—*Harper's Young People.*



#### I NEVER KNEW

I NEVER knew how very far from home  
My wandering feet had strayed,  
Until I saw  
The wounds my Shepherd bore—  
Wounds which his thorny search for me had made.

I never knew within that sheltered home  
How good it was to be,  
Till, tired out  
With wandering and doubt,  
Back to his fold my Shepherd carried me.

—*Anna Temple, in Sunday School Times.*

#### JULY STUDY OF THE FIELD

PART IV: "IN THE LAND OF HONDURAS:"  
"HOW CAN WE BEST HELP  
PUERTO RICO?"

(July 22-28)

1. *The Republic of Honduras* is a little larger than the State of Ohio. Its inhabitants number four hundred and thirty-one thousand. Nearly half of the country is inhabited by isolated Indian tribes, whose habits and customs are but little known. The people of this republic are a mixture of Spanish and Indian blood. The prevailing religion is the Roman Catholic. The villagers are hospitable and free from care. They have few wants, and supply these with as little labor as necessary. Their methods of agriculture are primitive. Wooden plows are used in the better-cultivated districts, but the instruments most commonly found are the machete, the hoe, and an instrument resembling a small spade. The men in charge of the various departments of state welcome to Honduras those who will illustrate advanced farming methods. Farmers and gardeners with capital could enter this field; and while teaching the people to cultivate the soil, could also teach them the higher art of cultivating the soul for the heavenly inheritance.

2. *Resources of Puerto Rico.*—At present very little in the way of plant products is exported from Puerto Rico, outside of coffee, sugar, and tobacco. All other crops have been considered unworthy the serious attention of planters, their cultivation being generally left to the desultory efforts of the most ignorant of the population. As the soil and climatic conditions are exceedingly diverse, it is probable that a wide range of products could be secured, at least for local consumption. Oranges, limes, and other citrus fruits, European grapes, and other semitropical fruits and vegetables, can be produced in the drier parts of the island; while from the moister parts, vanilla, cocoa, mangoes, and other more strictly tropical plants can be cultivated. Over thirteen million dollars' worth of coffee has been exported in a single season from Puerto Rico, in spite of the fact that the methods of cultivation are of the most primitive character. For men of capital and experience in the industries of tropical countries, there are good openings in Puerto Rico.

3. *Homes of the Poor.*—One small room, or perhaps two, in the basement or the street floor of the city houses, with no window but a small aperture at front and rear, no furniture

except of the most meager, and the barest necessities to keep life going, constitute the home. In the suburbs it is one room, or a small hovel of palm-leaves and grasses, with the inmates crowded in as you never saw them in any other place.

4. *Education.*—The few schoolhouses now found in Puerto Rico did not exist when the Americans entered that island, the teachers taking the children into their private houses. The school system, with a few slight exceptions, consisted practically of but one grade. The pupils had no school-books. The teacher would have an arithmetic, a grammar, a geography, and perhaps two or three reading-books, which he would pass around the class; but the teaching in other studies would be conducted by having the pupils copy the questions and answers, and then commit them to memory. That was the sum and substance of the teaching—committing everything to memory. Not more than fifteen per cent of the population are able to read and write. These people are desperately in need of education, both religious and intellectual. We have some responsibility in giving this to them. They are not naturally inferior. Their educated men, both white and colored, excel in intelligence and courtesy.

5. *A Picture of the Puerto Rican Coffee-Pickers.*—"Ragged, tattered pickers, large and small, father, mother, and a brood of partially clothed children, make one of the most picturesque sights in this island of loveliness. In the early morning they trudge out from their little thatched-roof huts, with homemade baskets slung on bands from their shoulders, or balanced carelessly on their heads, straggling along the trails and roads, the little elfin children chasing one another in glee as they go to work. Later, from the depths of every thicket comes the chant of singing voices; and the chorus is feminine, the woman of poverty, somehow, knowing how to be happier than the man. The little children gather all the low berries that may be reached by their tiny hands, while the grown-ups bend down the tall bushes, and rapidly strip the fruit into their baskets. At dusk, from every side burdened figures struggle up the steep hillsides to the winding trails, or ease themselves down, step by step, from the heights above. The men and women are carrying the berries now, sometimes laden down with a large basket on the head, and smaller picking-baskets swung around the body; while the sleepy, tired tots stumble along with all the brightness of life gone out, for that day, from their worn-out little souls. It is no uncommon sight to see a mother carrying a sleeping child in addition to her other load."

6. *Some of the Beauties of Puerto Rico.*—Puerto Rico has great advantages in climate and scenery to attract visitors. It stands out in the Atlantic so far that it catches the full benefit of the steady trade winds. These give an equable climate. The temperature in winter every day reaches about eighty degrees, and ninety-two degrees is the extreme limit of summer heat. The island is one of the most beautiful in the world. It is about two thirds the size of Connecticut, and nearly the same shape, three times as long as it is wide. The mountains rise from the coast, leaving no sandy barrens and almost no stretches of marsh. The lower swales and valleys afford rich fields for pasture or for sugar-cane. On the knolls are orchards of cocoanuts; about the houses and huts are groves of bananas; on the hills to their summits grows the coffee, protected by

the shade of small trees. There is grass everywhere, densely matted and low, or, where cultivated, growing half high enough to cover the large cattle. The absolutely clear sky, without smoke or haze or dust, the constant verdure, the tropical vegetation, and the beautiful mountain scenery, make Puerto Rico a most attractive spot.

7. *Work for All.*—“By the efforts of children and youth many souls will be won to the truth.” “The Lord has his eye upon every one of his people. He has plans concerning each.” “Did the professed believers in the truth live the truth, they would to-day all be missionaries. Some would be working in the islands of the sea, some in the different countries of the world. Some would be serving Christ as home missionaries.” “All who are ordained unto the life of Christ are ordained to work for the salvation of their fellow men. He who loves God supremely, and his neighbor as himself, can not rest content with doing nothing.”—*Mrs. E. G. White.*



**THE PERSECUTOR A PREACHER**

(July 28, 1900)

*Lesson Text.*—Gal. 1:15-24.

*Memory Verse.*—Eph. 3:8.

NOTICE that verses 15-17, which formed a part of the last lesson, are repeated in this, to preserve the connection of events. Look up on the map all the places mentioned in the lesson. Note that Tarsus, where Paul went from Jerusalem (Acts 9:30), was Paul's native city. Acts 21:39.

In your study of this lesson, continue the plan of careful, prayerful study of every part of the text. “There is but little benefit derived from a hasty reading of the Scriptures. One may read the whole Bible through, and yet fail to see its beauty, or comprehend its deep and hidden meaning. One passage studied until its significance is clear to the mind, and its relation to the plan of salvation is evident, is of more value than the perusal of many chapters with no definite purpose in view, and no positive instruction gained.”—“*Steps to Christ.*”

**QUESTIONS**

- Who had called Paul? Gal. 1:15. How does God call men? Rev. 22:17. How many does Jesus say he will draw unto himself? John 12:32. Do all yield to this drawing? Heb. 10:39.
- Whom did God reveal in Paul? With whom did Paul not confer? Gal. 1:16. With whom did he confer? Vs. 11, 12; note 1.
- What did Paul do after his conversion? Acts 9:20-22. Where did he then go? Gal. 1:17. How long did he remain there? V. 18. To what place did he return? V. 17.
- After his return to Damascus, what danger threatened him? Acts 9:23, 24. How did he escape? V. 25. Where did he then go? V. 26; Gal. 1:18.
- Whom did Paul go to see at Jerusalem? How long did Paul stay with Peter? V. 18.
- How many of the apostles did Paul see at this time? V. 19.
- What solemn declaration does he make as to the truthfulness of his statements? V. 20; note 2.
- How was Paul received by his brethren at Jerusalem? Acts 9:26. Who took his part at this time? V. 27. What did Paul do while in Jerusalem? With what results? V. 29. Where did he go next? V. 30; Gal. 1:21.
- To what extent was Paul known to the churches in Judea? V. 22. What report did they hear of him? V. 23.

10. What did they do because of this good report? V. 24; note 3.

**NOTES**

- Paul did not seek counsel of men at his conversion, neither did he follow his own ideas and wishes. Jesus had spoken to him, calling him to do a great work; and he submitted himself to the Lord's instruction.
- In stating these facts about himself, Paul makes it plain that he had received the gospel from the Lord, not from men. He claims to be an apostle because the Lord had called him, instructed him, and sent him to preach to the Gentiles. He did visit Jerusalem; but his stay there was short, and he saw but two of the apostles at that time.
- The brethren in Judea had been persecuted by Paul before his conversion. But when they heard of his conversion, they did not distrust him, and question his sincerity; instead, they glorified God in him.

**TEACHING WE DO WITHOUT A TEXT-BOOK**

TWENTY years ago a discouraged young doctor in one of our large cities was visited by his old father, who came up from a rural district to look after his boy.

“Well, son,” he said, “how are you getting along?”

“I'm not getting along at all,” was the disheartened answer. “I'm not doing a thing.”

The old man's countenance fell, but he spoke of courage and patience and perseverance. Later in the day he went with his son to a free dispensary, where the young doctor had an unsalaried position, and where he spent an hour or more every day.

The father sat by, a silent but intensely interested spectator, while twenty-five poor unfortunates received help. The doctor forgot his visitor, while he bent his skilled energies to his task; but hardly had the door closed on the last patient when the old man burst forth: “I thought you told me you were not doing anything!” he thundered. “Not doing anything! Why, if I had helped twenty-five persons in a month as much as you have in one morning, I would thank God that my life counted for something.”

“There isn't any money in it, though,” explained the son, somewhat abashed by his father's vehemence.

“Money!” the old man shouted, still scornfully. “Money! What is money in comparison with being of use to your fellow men? Never mind about money; you go right along at this work every day. I'll go back to the farm, and gladly earn money enough to support you as long as I live,—yes, and sleep sound every night with the thought that I have helped you to help your fellow men.”

“That speech,” I said to a friend of mine, —one who has spent many years as a conspicuously successful teacher,—“went into the bones of the young doctor's life, and strengthened him for a life of unselfish usefulness.”

“Ah,” said the professor, “that one speech was worth years of text-book teaching! And yet it was made without an instant's preparation.”

“Far from it,” I answered, quickly. “It had taken sixty years of noble living, struggling against sin and self, pressing forward in paths of righteousness, bearing the cross, following hard after the Perfect Man, to prepare that old Christian to make that speech. Then the moment came, and he was ready to teach the glorious lesson.”

For this teaching without text-books, fellow teachers, life's normal school holds daily, hourly lessons.—*S. S. Times.*

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**TIME TABLE NO. 3.**

IN EFFECT SEPT. 24, 1899.

Trains Pass Battle Creek, as follows:

**WEST-BOUND.**

No. 21, Mail and Express ..... 6.58 P. M.  
No. 23, Accommodation ..... 2.07 P. M.  
No. 27, Local Freight ..... 8.25 A. M.

**EAST-BOUND.**

No. 22, Mail and Express ..... 8.25 A. M.  
No. 24, Accommodation ..... 1.45 P. M.  
No. 28, Local Freight ..... 5.30 P. M.

Direct connections are made at Toledo with all roads diverging. Close connections for Detroit and Cincinnati. **J. L. READE,** Ticket Agt., Battle Creek.

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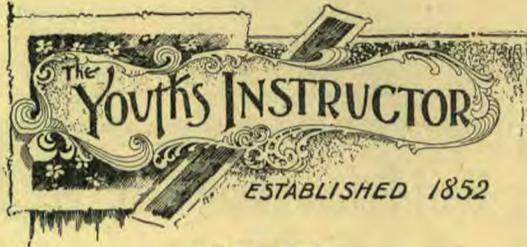
**WEST-BOUND FROM BATTLE CREEK.**

No. 8, Mail and Express, to Chicago ..... 12.15 P. M.  
No. 1, Chicago Express, to Chicago ..... 9.00 A. M.  
No. 3, Lehigh Valley Express, to Chicago ..... 8.40 P. M.  
No. 5, Pacific Express, to Chicago, with sleeper ..... 1.10 A. M.  
No. 75, Mixed, to South Bend ..... 8.30 A. M.  
Nos. 9 and 75, daily, except Sunday.  
Nos. 1, 3, and 5, daily.

**EAST-BOUND FROM BATTLE CREEK.**

No. 8, Mail and Express, to Pt. Huron, East, and Detroit ..... 8.45 P. M.  
No. 4, Lehigh Express, to Port Huron, and East ..... 8.27 P. M.  
No. 6, Atlantic Express, to Port Huron, East, and Detroit ..... 2.25 A. M.  
No. 2, Lehigh Exp., to Saginaw, Bay City, Pt. Huron, and East ..... 6.50 A. M.  
No. 74, Mixed, to Durand (starts at Nichols) ..... 7.15 A. M.  
Nos. 8 and 74, daily, except Sunday.  
Nos. 4, 6, and 2, daily.

**A. S. PARKER, Ticket Agent,** Battle Creek.



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### FOR EVERY DAY OF THE WEEK

#### SUNDAY:

"Richest gifts are those we make.  
Dearer than the love we take,  
What we give for love's own sake."

#### MONDAY:

The best reward for having wrought well  
already is to have more to do.—*Charles Kingsley.*

#### TUESDAY:

"All common things, each day's events,  
That with the hour begin and end,  
Our pleasures and our discontents,  
Are rounds by which we may ascend."

#### WEDNESDAY:

After all, the kind of world one carries  
about in one's self is the important thing:  
the world outside takes all its grace, color,  
and value from that.—*Lowell.*

#### THURSDAY:

"Impress this truth upon me—that not one  
Can do my portion that I leave undone;  
For each one in Thy vineyard hath a spot  
To labor in for life, and weary not."

#### FRIDAY:

Not a prayer, not an act of faithfulness in  
your calling, not a self-denying or kind  
word or deed, not a weariness of painful-  
ness endured patiently, not a duty per-  
formed, not a temptation resisted, but  
enlarges the whole soul for the endless  
capacity of the love of God.—*E. B. Pusey.*

#### SABBATH:

"Search me, O God, and know my heart:  
try me, and know my thoughts: and see if  
there be any wicked way in me, and lead  
me in the way everlasting." Ps. 139:  
23, 24.

BESSIE STEEN, who sends an interesting little story to the INSTRUCTOR, mentions one article that she thinks worth more than a whole year's subscription. Others have spoken of this special article, too. We hope to have others in this series—the "Overhead" series—that will be just as interesting and valuable.

"I WISH I had some place to work—some work to do that would really count," sighs many a discontented boy and girl. You have a place—"just where you stand in the conflict, there is your place"—there, and nowhere else. Don't sigh for a wider field till the small plot under your care is perfectly tilled—till every

inch is under cultivation, and there are no weeds of neglect to mar its beauty or hinder its usefulness. Not till this is true could you care for a larger field if you had it; and when it is true, you will have it. Each one in his own place, doing his own work—the place the Master has given, the work he has appointed—in what better place can any one be found?

"I am only one,  
But I am one;  
I can not do everything,  
But I can do something.  
What I can do  
I ought to do;  
And what I ought to do,  
By the grace of God I will do."

### DO NOT WAIT

OUR old friends!—the dear grandmas and grandpas and uncles and aunts who have watched us through the days of childhood, and out upon the broader path of youth,—who have petted us, and loved us, and prayed for us,—should we not remember to be kind and thoughtful to them? Perhaps they are bound to us by close ties of relationship, perhaps only by their friendly interest and love; but however this may be, there is very much that youth can do to make happy and bright their few remaining days. Age is often lonely. Shall we not gladly bring to it the sunshine and strength and hope that fill our lives, that the dear old people may be for a brief moment carried out of the present—may for a little while feel young again? Do not think they will take no interest in your plans, your success, any happiness that may come your way. You have never tried sharing your gifts of happiness with your aged friends if you think so. It will not be possible for us to realize just how much they appreciate our confidence, just how heartily they rejoice in our success and enter into our plans, till we, too, reach the land where achievement, and the pleasure that comes from it, are largely a matter of memory.

And we shall not be the only givers. From the rich stores of their experience we may receive much that will be of benefit and real profit when applied to our own, and much more that can be adapted to the changed conditions of our lives. The young persons who have not some old friend or friends among their acquaintances are missing a great deal of the beauty of life—the blessing of carrying comfort and joy to those who are often neglected, and shut away from, and left out of, the active life around them, and of receiving, in turn, the counsel and advice that years and experience alone can give.

And let us not forget that at the longest the time is short in which we can have these old friends with us. Soon the day will come in which all our unspoken, unacted kindnesses will not be able to reach, with their message of love and cheer, the hearts they might have comforted. Oh, let us not wait till it is too late to show our love!

### THE VICTORY

DID you ever think what it meant to be a follower of the Master in the days of the early Christians? One writing of that time says: "One of those early Christians is on the street; at every corner stand images of the heathen gods. Every one who passes the image must pay homage. The Christian can not. One of these early Christians is in a court of justice. There is an image of a heathen god or emperor. There is an altar, with wine and incense. Every one who passes that altar must pour wine, and burn incense, in homage to the heathen god or emperor. The Christian can not. One of

these early Christians enters a shop to make a purchase. There is a heathen image. Every one entering must do worship toward it. The Christian can not. One of these early Christians is at a family festival. The emperor's image is enshrined in every house. Every one must do worship toward the Cæsar god. The Christian can not. Do you see what a daily crucifixion and test of loyalty to Christ that Christian's life was? Do you not see how danger threatened him, how sneers smote him, how gibes struck at him? Bleak and hostile was the place in which that early Christian stood."

Yes, it meant much then to be a Christian. When we think of our home influences, our Christian schools, our opportunities for worship, and contrast our favorable surroundings for living a Christian life with the trials and persecutions that followed the early believers, we are sometimes led to wonder at their faith. But to be a true Christian is always a matter of faith, simple belief and trust in the word and love of our Heavenly Father,—and that will remove very mountains of difficulty, and enable its possessor to move forward and upward as if they were not. Our very opportunities may, indeed, become a source of weakness rather than strength; but it is faith that can bring the victory now as then. "This is the victory that overcometh, . . . even our faith."

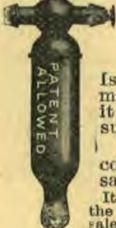
### EARNED THE MONEY HIMSELF

THAT is what one of the boys of the INSTRUCTOR family writes when renewing his subscription: Well done, Henry! We are sure you will enjoy the paper all the more from the fact that you have earned the right to enjoy its weekly visits.

One of our State workers, speaking of the INSTRUCTOR in a recent letter, said: "In regard to the INSTRUCTOR I wish to say that it is the best, in my opinion, it has ever been; and I wish all the young people in our State had access to it." If all would adopt Henry's plan, we are sure that many more of those for whom the paper is made would have it.

WE wish to call the attention of INSTRUCTOR readers to the work on bookkeeping and business training advertised in last week's issue. "Fireside Accounting and Business Training" is written by Prof. E. E. Gardner, who has for a number of years done successful work in the Battle Creek College. The system is especially adapted to home study, and should be in every home where there are young persons, or others who wish to have a thorough knowledge of business principles and the keeping of accounts. For terms, etc., see page 223, issue of July 12.

### A Bonanza for Live Agents!



MEN OR WOMEN

**The Magic Pocket Vaporizer**



Is one of the best-selling articles on the market to-day. Compact and effective, it appeals at once to the man or woman suffering from catarrhal affections.

Energetic agents throughout the country are making good wages by its sale.

It will be to your advantage to read every word of the following unsolicited letter from one of our salesmen:—

1101 LINCOLN AVE., SAGINAW, W. S., MICH., Feb. 6, 1900.

Modern Medicine Co., Battle Creek, Mich.

GENTLEMEN: I have canvassed the greater part of the time for more than thirty years, keeping my eyes open all the time for the best-selling books and other articles that might come upon the market, but do not hesitate to say your Magic Pocket Vaporizer is the best thing I have ever found to pick up money with. It is a real money catcher, as you will see by the following. On arriving in my territory, I went directly to work. At sundown that day I had sold four and taken five orders; the second day I put in about eight hours, and had fourteen in orders and sales. I can usually average eleven orders out of fifteen exhibitions, or a profit of from four to six dollars a day. I have succeeded in putting thirteen Vaporizers in one home, receiving \$12.50 for them; eight Vaporizers in another family; five to a Baptist minister; three to another family. Yours truly, H. S. MERCHANT.

Write at once to the MODERN MEDICINE COMPANY, 105 Washington Ave., Battle Creek, Mich., for terms and territory.