

THE YOUTH'S INSTRUCTOR

REMEMBER NOW THY CREATOR IN THE DAYS OF THY YOUTH

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WITH PEN AND KODAK

FRUIT CULTURE IN THE RUSSIAN RIVER VALLEY.

AFTER the gold excitement of '49 and the early '50's had partially subsided, many of the disappointed gold-seekers in California began to look around for some other way to gain a competence. Most of the land had been granted by the Spanish and Mexican governments to individuals; and the newcomers found the original grantees or their descendants occupying large tracts for grazing purposes, while they lived a life of indolence and ease. These open-hearted, open-pursed dons were no match for the shrewd Yankees, and soon their lands passed from their control. Through mortgage and foreclosure, or direct sale, some of these grants were transferred intact, and usually became great fruit or grain ranches.

On such ranches, land is measured by the thousand acres, and crops are estimated by the thousand tons. The work is done by men who receive a fixed salary, and see their employer perhaps only once or twice a year.

These great ranches, and the methods of working them, have been described again and

California fruit has contributed more to the fame of the State than has any other one product except gold. But not all parts of the State are suited to fruit-culture. Some places are so arid that nothing can be grown without irrigation; in others the rainfall is so great that drainage must be resorted to. In some sections the summers are so long and hot that all but tropical plants will wither and die in the burning sun; while in others only the most hardy trees and shrubs can bear the rigor of the long winters. Some famed regions, however, nature has blessed with a happy medium between heat and cold, between drought and flood; and these are almost entirely given over to fruit-culture.

The Russian River Valley, a short distance north of San Francisco, is probably a fit representative of these regions. Within the memory of the "old-timers" this entire valley was owned by a few men, and was used wholly for stock-raising. Now it is occupied by thousands of fruit-ranches. Many of these contain but ten or fifteen acres; yet the smallest of them supplies work for at least one man throughout the whole year, and necessitates the employing of extra help in the busy seasons.

Grapes, prunes, peaches, and apricots are the fruits most commonly grown; but oranges, figs, olives, and, in fact, all fruits that can be grown in temperate or subtropical countries, find a place in this fertile valley. Because of the great diversity of the crops grown, there is no time in the year (except on holidays or during rain-storms) but some one will be found

at work in the orchards.

January is fertilizing and pruning time.

In February comes the harvest of citrus fruit. This is sold in the open market, the principal part of the crop being shipped East.

About the first of March the early plowing begins. The soil is then thrown from the trees, leaving each row in a sort of trough, or ditch, made by the double furrow. The water from the spring rains is thus spread in about the roots of the trees.

The trees begin to blossom about this time, and by the middle of March the whole valley

is filled with great patches of pink and white blossoms. It is a wonderful sight to stand upon a hilltop, and look down upon this vast flower garden, broken here and there by a green



THE LATE PLOWING.



DRYING PRUNES.

again, until the prevailing belief outside the State is that California is a land of great enterprises, where everybody is either a millionaire or a wage-earner. But California has its middle class,—the class that is neither rich nor poor, but is the mainstay of every nation,—the class from which spring the great men of all ages.

Most of the old Spanish land-grants were divided and subdivided until a tract of land that once boasted but a single ranch-house now supports hundreds of country homes, and perhaps several thrifty little villages.

meadow or a dark, bare field, which marks a vineyard.

The orchards are often attacked by fungi and numerous insect pests. To guard against these, the trees are sprayed with poison while they are in bloom. The State Department of Agriculture is a great help to the farmers in this matter. Bulletins and pamphlets are periodically published, and circulated free of charge. By consulting these, the farmer is able to identify any pest that may attack his trees, and to apply the required remedy.

After the rains are over, the ground is again plowed; but this time the earth is thrown toward the trees, and the double furrow left between the rows. It is then thoroughly harrowed and "clod-mashed," until the soil is soft and mellow, to prevent the moisture from evaporating too rapidly. When the spring rains are over, the trees must feed upon the moisture stored in the soil until the season's crop is harvested. Sometimes when the ground is "laid by," or prepared for the dry season, a late rain comes upon it. Then unless it is cultivated and harrowed again, the sun will bake a few inches of the soil into an adobe brick, under which the trees will not thrive.

Immediately after the late plowing comes the thinning of the fruit, to prevent the trees from overbearing. This will occupy the time until early in May, when the cherries begin to ripen. The local canneries use part of the cherry crop. The remainder is sold for home consumption, or shipped to the neighboring States.

June brings the apricots. The canneries take the best of these, and the remainder are dried.

Early in July some varieties of apples are ripe; and from that time until late in Novem-

ber, apples are in season. The flavor of California apples can not compare with that of those grown in the East; and for this reason there is little market at the canneries, and no call for shipment of this fruit outside the State. Some apples are sold for home consumption, but the principal part of the crop is either dried or left to rot where it falls. Seven dollars a ton is thought to be a good price for apples sold for drying. Despite the usual waste and small price, however, the trees are so prolific that apples are one of the best-paying fruit-crops.

About the first of July the first figs are ripe. A fig-tree is said to bear three crops during the season; but it really bears continuously from July till November. Very few of the first figs mature; but those that do ripen have a much finer flavor than those that come later.

The early peaches are gathered in July, and from then until September the later varieties, with the pears, plums, apples, and figs, keep the farmer busy. The most of this fruit, with the exception of apples and figs, is used by the canneries; the remainder is dried.

In September the prune crop must be cared for. There is no market for this fruit until it is dried. As soon as possible after the prunes are gathered, they are dipped in a hot solution of lye to break the skins. They are then washed, and spread out on large trays to dry in the sun. Within the last few years, machines that greatly facilitate the dipping and washing process have come into general use, but it is hard work at best. Undipped prunes require about six weeks to dry; but by dipping, the time is shortened to ten days. Before the drying is finished, the early fall rains sometimes begin, and then the trays must be piled up and covered until the storm is past. If the rains are frequent, or of long duration, part of the crop sometimes mildews, and must be thrown away.

About this time the olives are ripe, if they have not been picked green. Ripe pickled olives are now being placed upon the market, but as yet only a small part of the crop is utilized in this way and for the production of olive-oil. By far the greater portion goes to the consumer as pickled green olives.

October is the time for grape-picking. The grapes of this section are almost entirely used in wine-making. They are hauled from the vineyard directly to the winery, and are often crushed the same day they are picked.

Early in November the last of the figs and winter apples are gathered. Then, when the fruit-boxes and drying-trays are collected, the farmer has a few weeks for a general clean-up before the Christmas holidays; for his year's work really begins and ends with the year.

J. EDGAR ROSS.

RAPID MANUFACTURE.

THE story is told that in 1811 Sir John Throgmorton, a Berkshire baronet, made the assertion that at eight o'clock on a particular evening he would sit down to dinner in a well-woven, well-dyed, well-made suit, the wool of which had formed the fleece on sheep's backs at five o'clock that morning. The feat was considered impossible. On June 28 the test was made, and successfully accomplished, with an hour and three-quarters to spare, the suit being ready at a quarter past six.

May 18, 1898, Mr. Thomas Kitson, of Stroudsburg, Pa., attempted a similar feat. The sheep were shorn at half-past six in the morning, the fleece was passed through eighteen processes of manufacture, and came out finished cloth in three hours and thirty-four minutes.

The cloth passed into the hands of six tailors, and in two hours and a half the suit, complete in every particular, was ready for Mr. Kitson.

The whole process, from the time that the wool was on the sheep's backs, until the suit was ready for the man's back, occupied six hours and four minutes; less than half the time it took to make the suit for Sir John Throgmorton in 1811.—*Wellspring*.

"ONLY he who dares to be true can be great."



HABIT.

HABIT at first is but a silken thread,
Fine as the light-winged gossamers that sway
In the warm sunbeams of a summer's day;
A shallow streamlet, rippling o'er its bed;
A tiny sapling, ere its roots are spread;
A yet unhardened thorn upon the spray;
A lion's whelp that hath not scented prey;
A little, smiling child, obedient led.
Beware! that thread may bind thee as a chain;
That streamlet gather to a fatal sea;
That sapling spread into a gnarled tree;
That thorn, grown hard, may wound and give thee pain;
That playful whelp his murderous fangs reveal;
That child, a giant, crush thee 'neath his heel.

—Selected.

TRUE EDUCATION.

TRUE education is to know and to do the will of God. This education is as lasting as eternity. The Bible is to be our text-book; for true religion is the foundation of all true education. Intellectual training can never safely be disconnected from religion; and with the study of books, manual training is to be combined, that the mind may be correctly balanced, and solidity be given to brain, bone, and muscle. This world is our preparatory school. The school and the college are necessary for the development of the mind and the formation of the character. But the cultivation of the intellect alone, apart from a moral and religious education, has a baleful influence. The man who neither loves nor fears God may reach dazzling heights in intellectual attainments, and yet use his acquired knowledge to war against his Maker. If men accept the Lord God of heaven as their teacher, will they not gain the best kind of knowledge, for this world as well as for the next? Mental strength comes alone from a knowledge of the laws that God has established in nature and in the human structure. We must be obedient to these laws, or our lives will be a failure.

Under the controlling influence of Christ, the human intellect can achieve wonderful things. The youth should be encouraged to reach the highest standard of intellectual acquirement. If the fear and knowledge of God are made first, there is no danger that the student will soar too high. The knowledge of God, the understanding of his will in his word, as far as human minds may grasp it, incorporated into the thoughts and woven into the character, will make efficient men and women. The study of the word of God will enable us to do his work intelligently and acceptably. The mind will be enriched, enlarged, and broadened. Those who thus constantly study the Word will go upward and forward toward the highest standard, because they are partakers of the divine nature.

Daniel was closely connected with the source of all wisdom, and this was to him more precious than the gold of Ophir. He kept his religious training on an equality with the advantages that were given him for becoming a wise and learned man. He used his entrusted capital aright. He was aroused by the situation in which he found himself in the king's court. He co-operated with God in the use of every power that had been given him, and we read: "As for these four children, God gave them knowledge and skill in all learning and wisdom: and Daniel had understanding in all visions and dreams." Daniel was connected with God, and the secrets of the Most High were opened to him; for God is with those that fear him. "And the king communed with them; and among them all was found none like Daniel, Hananiah, Mishael, and Azariah; therefore stood they before the king. And in all matters of wisdom and understanding, that the king inquired of them, he found them ten times better than all the magicians and astrologers that were in all his realm." Continual

growth in religious wisdom and intelligence did not in any way disqualify these youth for the faithful discharge of the important duties assigned them in the kingdom of Babylon. God gave them his wisdom and knowledge for the perfecting of a thorough education.

Let children and youth be given true education. Teach them to give God their entire devotion; for they are wholly dependent on him in this life, and for the future, immortal life. The knowledge of truth is the nutrition that the soul needs, in order to be prepared to act as wise a part as did Daniel and his associates. Every time the conscience is violated, sin is committed, for which the wrong-doer must suffer the sure result. The penalty of sin is death. With persevering effort and patient forbearance, children must be taught that the fear of the Lord is the beginning of wisdom. When very young, they may be taught the statutes and commands of God. The thoughts and sentiments of his law are to be interwoven with their knowledge of the sciences. A true knowledge of the word of God is the only true scientific education.

We can not afford to separate spiritual from intellectual training. Well may parents dread intellectual greatness for their children unless it is balanced by a knowledge of God and his ways. It is of great importance that the youth take with them from school an intelligent love for God and his truth. This lies at the foundation of all true knowledge. We are in a world subject to disease and death. He who during his lifetime serves God faithfully has the assurance that he will come forth from the grave to a glorious immortality. Of such a one it may indeed be said, "It is well with his soul." In every school in our land the Lord God of Israel should be exalted, revered, and honored. In the place of unsanctified rivalry for earthly honor, the highest ambition of students should be to go forth strengthened, established missionaries for God, educators who can teach what they have learned.

Goodness alone is true greatness. With persevering faith, teachers are to hold to the infinite One, saying, as did Jacob, "I will not let thee go, except thou bless me." Education is not perfect unless the body, the mind, and the heart are equally educated. Students who go from school with this education will draw to Christ not only men and women, but children and youth. These need to learn to discipline self; to take up the duties nearest them; and then, however unpleasant the work may seem, to advance steadily. When they learn what constitutes them true children of God, a work will be done that Satan himself can not undo nor make of none effect. He who opens his heart to receive true education receives power from God to impart light to others.

MRS. E. G. WHITE.

THE SIN OF FRETTING.

"THERE is one sin which, it seems to me," writes Helen Hunt, "is everywhere, and by everybody underestimated, and quite too much overlooked, in valuations of character. It is the sin of fretting. It is as common as air, as speech,—so common that, unless it rises above its usual monotone, we do not even observe it. Watch any ordinary coming together of people, and see how many minutes it will be before somebody frets; that is, makes some more or less complaining statement, which every one in the room, or the car, or on the street corner, knew before, and which nobody can help. It is cold, it is hot, it is wet, it is dry; somebody has broken an appointment; a meal is ill-cooked; stupidity or bad faith somewhere has resulted in discomfort. There are plenty of things to fret about. It is simply astonishing how much annoyance and discomfort may be found in the course of every-day's living, even at the simplest, if one only keeps a sharp eye out on that side of things. The Bible itself says that we are born to trouble as sparks fly upward. But even to the sparks flying upward, in the blackest of smoke, there is a blue sky above; and the less time they waste on the road, the sooner they will reach it. Fretting is all time wasted on the road."



ANCIENT BOOKMAKING.

The Volume.

IN one of the visions recorded in the Apocalypse, the apostle saw a book "written within and on the back side, sealed with seven seals." This was the *volumen*, or scroll, the ordinary form of a papyrus book. Most scrolls were written only on the inside; but the original copies of authors were often written on both sides, and this one was written in that way.

The papyrus was usually made up into rolls of a convenient size; twenty sheets usually went to a roll. The first, or left-hand, sheet was of the best quality; for it had to endure much wear. This sheet was called the *protocol*, a term now used of the first draft of a treaty. The last sheets, which were well protected, and were often, when not needed, cut away entirely, were of the poorer grades of papyrus. After a book was finished, the last sheet was fastened to a round stick, with knobs at the ends, called the *umbilicus*, upon which the papyrus was rolled. In reading the book, the *umbilicus* was held in the right hand, and the part which had been read was rolled up with the left. No doubt this was very clumsy; at least we should find it so. It may have seemed easy and convenient to those who knew of no better way.

The edges of the roll were trimmed so as to make an even surface, smoothed with pumice-stone, and sometimes handsomely stained. The backs of valuable manuscripts were rubbed with cedar-oil to keep away moths. A wrapper, called the "traveling cloak," made of colored vellum, was rolled about the book. Finally a strip of vellum, usually colored, was pasted to the upper edge of the papyrus, so as to hang out; and upon this was written the title, or label, of the book. This was called the *index*, or *syllabus*.

A large work could not be written on a scroll of convenient size, so authors usually divided their writings into small "books," about long enough to cover an ordinary roll. This roll was sometimes called a *tomos*, or cutting. We still have all three words applied to the larger divisions of a book,—book (*liber*), volume, or tome. The last two of these, at least, remind us of the time when books were scrolls of papyrus; while the first carries us back to the original roll of bark.

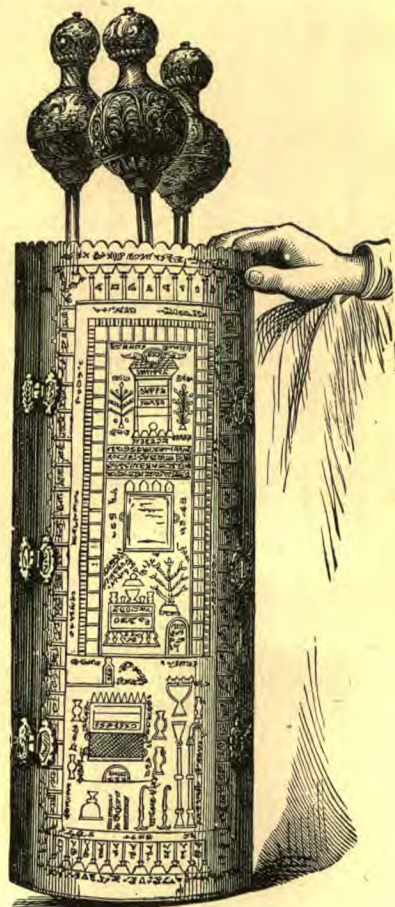
To make reading easy, the writing was arranged in narrow columns called *paginae*,—pages,—from a word which originally meant a plank. They were also called by another name, which meant a gang-plank. To rule the papyrus into lines and columns, a rolling disk of lead was used; a pencil would have torn the fabric. If errors were to be erased, the ink was wiped off with a sponge. In the older books the title was written at the end; but afterward it was written also at the beginning, on the protocol, which usually bore the signature and trade-mark of the makers of the papyrus. The back of the manuscript, like the fly-leaves of a modern book, was used for notes, for scribbling, or for any sort of writing that waste paper is likely to receive.

The several volumes of a book could not be tied together; that would have destroyed the papyrus. They were kept in a round chest, or *capsa*, made for the purpose. Each book had its own chest, or chests; for if the book was very large, one chest would not contain it all,—the chest having room for from three to ten volumes. The luggage of a literary gentleman on his travels in those days included an assortment of these chests.

If we could walk through one of the great libraries of classic times, we should see on each side, not shelves, but tiers, of boxes, like pigeonholes, and from each box would project the ends of several scrolls. Some would be

wrapped in traveling cloaks of rough shipping-papyrus,—*charta emporetica*,—others in gay coats of scarlet and blue and costly purple vellum, with umbilici of handsomely carved ivory. Some would have plain white edges, others would be stained or gilded, and from all would hang the little bright-colored tags bearing the syllabus. In places handy to get at would be the catalogues,—heavy volumes with endless lists of books. There would be attendants, too,—in Greek costume, of course,—passing back and forth through the aisles.

Though the scroll belongs to the age of papyrus, it was not always of that material. The Jews always wrote the law upon scrolls of skins, and invariably on the inner side; to write any part of the sacred text on the back was thought to be a sacrilege. Vellum was sometimes made into rolls; but by the time it came into general use, the modern form of book had become common. Enumerations, genealogies, charters, and similar documents were written on rolls, even up to recent times; but



ANCIENT BOOK-ROLL.

always crosswise, and not lengthwise, as ancient books were written. From the use of the roll in England for such records, we have the expressions "enrolment," "tax-roll," and the like; and to call out the names of the members of a body in order is to "call the roll."

C. B. MORRILL.

BOOKKEEPING IN BABYLONIA.

PAPER and ink are perishable things, like certain other "modern improvements;" but some of the clay tablets used by earlier civilizations still survive. In the buried city of Nippur, American explorers have recently found, in one room, more than seven hundred of them,—the business records of a rich firm of merchants, Ulurashu Sons, who flourished twenty-five hundred years ago.

Among them is this guarantee for twenty years that an emerald is so well set that it will not fall out:—

"Bel-ahiddina and Bel-shumu, sons of Bel, and Hatin, son of Bazusa, spoke unto Bel-nad-inshumu, son of Morashu, as follows: 'As concerns the gold ring set with an emerald, we guarantee that for twenty years the emerald will not fall out of ring. If it should fall out before the expiration of twenty years, Bel-ahiddina (and the two others) shall pay to Bel-nad-inshumu an indemnity of ten mant of silver.'"

There are also leases of various kinds, and contracts for the sale of sun-dried bricks and other merchandise, and for the loan of seed-corn and oxen for plowing.—*Youth's Companion*.



A FEW FACTS ABOUT LIGHTHOUSES.



THE government of every nation is particular about having light and fog-signal stations erected at every point along its seacoasts where vessels are liable to be wrecked. The erection of these stations involves large expense and some wonderful feats of engineering.

The height of the light-tower depends on the relative surroundings of the location. The Point Arena (Cal.) tower is two hundred feet high, being the highest on the Pacific Coast. Its base is about twenty-five feet in diameter, the tower tapering gradually to the top, which contains the lamps, lens, etc. The walls are about five feet thick at the base, growing thinner toward the top. The means of ascent is by steel spiral stairs on the inside. The whole structure is built of brick and steel.

Different lights are used, to help the mariner easily to locate the position of his vessel on the coast. Some lights are fixed, or have a steady flame: others are revolving; that is, dark and light shades revolve around the light, so that at one moment the light is visible, and the next it is not: others have a colored fixed light: and still others flash different colors every few minutes.

"Light up," as the keepers call it, is at sunset; and lights are turned out at sunrise, not before.

The light is the next most interesting part of the station, and, with the lens, is the most expensive. The size of the lamp itself, which is made of brass, with a circle wick, surprises a visitor who has never seen one before, as it is small compared with the lens and tower. Indeed, it is not much larger than an extra-size home lamp. It is the lens that makes the light; that is, it magnifies the small light in such a way that its rays can be seen, in some instances, forty miles out at sea.

The lens is made with great care, and costs several thousand dollars; it is about seven feet high, and completely encircles the light. The space inside the lens is sufficient to allow the keeper to move about. The lens is enclosed by one-fourth-inch plate-glass. At night numerous ducks and other large birds are attracted by the powerful rays of the lens, and fly directly at the light, many times with such force that they go through the thick plate-glass, and up against the lens itself. Each time this happens, the lens is more or less damaged. Ducks are frequently picked up at the base of the tower, not having struck the plate-glass with sufficient force to break it, but quite hard enough to stun them. In this case the keepers have roast duck for dinner.

The fog-signal, or siren, looks like an immense fish-horn, and its mournful blasts can be heard from six to ten miles. It projects over the water, and is operated by steam. The machinery is so arranged that the siren blows automatically every thirty seconds; and its warning is very sweet music to those aboard ship during a heavy fog, when it is impossible to see ten feet ahead of the vessel, even during the day.

It is arranged that during time of war, when war-ships of other nations might be expected to bombard our coasts, the lights shall be ordered out, and fog-signals stopped. Of course this would result in grave danger to vessels of our own flag, but this is somewhat lessened by a code of signals, which both station-keepers and officers of American war-ships have in their possession. These signals will be promptly answered, and assistance rendered, either by light or siren. If the enemy is known to have passed, this information can also be signaled.

Regardless of the care taken by the government to afford protection against wrecks, many occur, and sometimes within a stone's throw of lighthouse stations. This was recently the case near the Point Arena light, where a vessel went ashore during a storm, and was broken completely in half. The crew took refuge in the rigging, and remained there all night and part of the next day, with breakers constantly dashing over them. Although these unfortunate sailors were within sight of shore, little could be done for them. Some became exhausted by the cold and exposure, dropped into the ocean, and were drowned; a few attempted to swim ashore, but only two were successful. Finally the keeper of the light-station, Mr. J. M. Brown, with the assistance of an Indian, who volunteered (the only one out of one hundred men on the beach who would go), launched a small boat, after securing a line to boat and shore. The attempt was unsuccessful, on account of the storm; but each of the brave men will receive a gold medal for the "attempt to save." The sailors were rescued by a steamer that opportunely passed by.

On first-class stations there are four keepers, — the head keeper, and the first, second, and third assistants. H. L. CARLISLE.



Chapter XI.

THE next morning the girls, of whom Shirley was by this time one, were early astir. Breakfast was taken in big swallows, while standing or perching on any convenient projection amid the tossed and tumbled confusion of bed-making and hasty toilets; then each was off to her work for the long, weary day.

Shirley's day was passed much as before. She found comfort, however, amid the discouragement that constantly crowned her search for employment, in feeling that she was anchored for at least one night, and looked forward all day to the stuffy little room and the girls with a strange pleasure, at which she herself wondered. Her reason told her that those girls were really nothing to her, that she should claim their hospitality; and yet all the strongest feelings by which she was actuated that day bound her to them. They were alike struggling for independence, compatriots in a common cause, with the same difficulties to overcome; and to have shared the same room, breathed the same close air, practised the same economies, for twelve hours together, made them more than ordinary friends. If she could only stay with them, Shirley was sure she could be happy and succeed; but the "other girl" was coming the next day, and she must have a place of her own at once. The next night came, however, and found her still unsettled. She was to keep her bag at the "Gooses' Nest" until she knew where she was to live, so as to be left free from the burden of it; but she could not think of crowding herself in upon them: seven would certainly be a jam in that tiny room. She went empty-handed to a hotel, paid a dollar for her room, and tossed all night, dreaming of Henry and the other girls, with an occasional thought of home thrown in. She was yet, however, too near the starting-point of her adventure to spend much time in dreams of anybody. Her thoughts of her father were still angry; those of her mother were filled with a sense of weariness. That burden was too heavy for her to lighten. It was better for her mother that she should be away, she was sure.

The next day passed with no success and ever-increasing expense. Then came the Sabbath. She had never regarded it very carefully, but now she must at least keep the promise made in the letter to her mother; so she went out to the church on Forty-sixth Street, stayed to Sabbath-school, and spent the remainder of the day in the park as quietly as

possible, and certainly realized that it had been a day of rest.

The next day she called on the girls, as that would be their rest day. She was disappointed in not seeing Henry, who had gone out with her friend for the day.

On Monday she began again her weary search; and now economies became more imperative every hour. It was surprising how the one item of car-fare mounted up; and the most unsatisfactory restaurant lunches made such inroads on her purse that at last she found herself, after closing-up hours, without money, lodging, or any prospect of a situation.

Shirley had been half-conscious all the afternoon of what was coming, but had had no experience by which to even foreshadow such possibilities; and when she knew that she was in the streets of the great city, supperless, friendless, homeless, moneyless, she could not understand, all at once, what it meant. She snapped the clasp of the empty purse in her hand as she stood before a restaurant window, with a peculiar sense of loneliness creeping over her, but smiling a little as she said, to herself: "I'm a poor lone goslin this time, sure 'nough,—'way out in the tall prairie grass, ready to 'zeap! zeap!' but I won't 'zeap! zeap!' It'll be a new experience to go without supper,—often wondered how it would seem to have nothing and nobody,—going to find out, I guess,—but I can stand it one night. My! but wouldn't father crow? Mother—what would she do? What *would* Seth do if he knew? Will would laugh, and so will I. Nobody need ever know. I can walk about,—got the city before me, and can see the sights,—never shall have a better chance. I can be comfortable out-of-doors this hot night, and in the morning I'll try again. I'll not go home unless I have to. Something is sure to come my way after a while."

She found plenty to take her attention as long as the shops were open. There was a weird attraction in watching the lights go out of the residence windows, and in seeing the business places made ready for the night-watch. She became interested in the long line of carriages waiting before a great theater, and walked slowly back and forth until the crowd began to pour out into the street, and she became a part of it. For a while she stayed with it, attaching herself to floating fragments of it, and listening to the chatter of beves of girls, and the talk of men and women as they discussed the play, until the throng had melted away, and she was alone with the ordinary street population of a great city on a warm spring night. She was not molested. For a long time no one seemed to be conscious of her existence; and she wandered around this block and that, wherever the lights were brightest, watching the darkening alleys and the dimming streets until at last the occasional light, the long stretches of shadow, the almost empty street-cars, the lonely, hurrying footmen, with once in a while a carriage, betokened the end of both labor and pleasure for another day.

The city was in its night dress; and the peculiar hush with which the ceaseless throbbing of its great arteries is heard, as, just before he sleeps, one hears the beating of his own heart, settled down upon it, and made it more desolate than a desert. Here and there a drug-store with its many colored lights brightened the long, shadowy reaches. Saloons on every hand kept their baleful eyes, which never shut, fixed upon the street, and made Shirley more afraid than she could have been of the darkness.

As a natural result of associated ideas, the recognition of saloons brought Martin McCarty vividly before her. With a sense of sudden chill and alarm, she remembered that he came into the city on the same train with her; and the thought of him intensified the fear that had been awakened by the vicinity of the only haunts of vice of which she had ever dreamed. Yet why she should think of him with fear she could not for a moment imagine, but she never forgot that first sickening touch of its clammy hand.

It was long past midnight. She was walking along State Street, south of Adams, with a

growing sense of weariness, and wondering how long the night would last, when she suddenly became aware that she was observed by a man who had passed her, turned, and was now coming toward her. As he approached, to her intense alarm she recognized Martin McCarty. Then she remembered dimly that she had seen the same figure at a distance several times during the evening, and knew that he had been following her. This accounted for the instinctive fear that had taken possession of her so suddenly; but now, when she recognized the actual occasion for it, it was superseded by a furious indignation, which was equivalent to courage, especially as he, without a word, turning at her side, began to walk with her.

She stopped, looked him full in the face, and drew back.

"Miss Shirley, you certainly will not make me believe that you object to my company," he said, in a mocking tone. "But I beg your pardon; perhaps I should have been more formal;" and turning so as to face her, lifting his hat, and bowing in the most approved style, he said: "May I have the pleasure of walking with you, fair lady, this evening?"

"No, sir, you can not!" answered Shirley, with a fire in her voice and manner that to such as he only made her more attractive. "You can just go your own way, and leave me to go mine."

"Oh, no, *please*; you can't be so cruel," sneered the fellow, taking a step nearer.

"I do mean it—go!"

"Oh, not alone,—with you gladly," making an attempt to take her arm.

Shirley, with her strong nature fully aroused, lifted her parasol, and with the knobbed end struck out straight before her twice, and sent the fellow's silk hat flying into the street; then, giving wings to her feet, she flew around the corner, westward, into the welcome darkness.

McCarty felt his forehead, which had not entirely escaped, then with great deliberation recovered his hat, brushed it with his sleeve, tried to mend a dent with his finger, the while he gave his mind to a mean little plot of revenge. He stood looking about for a moment, hat in hand; then, putting two fingers to his lips, he blew a shrill call, which was immediately answered by a policeman's whistle, and an officer strode around the Adam's Street corner toward him.

"Well, what's up?" he asked.

"Nothing very alarming, and yet a fellow don't let even a woman club him in the streets of Chicago, you know," holding out his hat, and pointing to his forehead, in evidence.

"Well, no,—a woman?"

"A girl, pretty and neat as wax, too; you'd never have thought it. Spoke to me as I passed, you know. I answered civilly enough, and she up with the loaded end of her parasol, and gave it to me."

"Did she speak first?"

"Of course she did. I'd seen her before. She acted suspicious. I'd been watching her—a little detective on my own account, you see—before I said anything. Saw her going about here all this evening,—rather late for honest women, eh? Just better keep an eye out—she ran off westward around that corner. Gray dress, white sailor hat, natty as you please. Will bear watching. I'll call around 'bout noon, and see what you've found."

The fellow walked off hurriedly, as if to escape questioning, and the officer turned thoughtfully west on Jackson.

"I wish I could run in a few such as he is just once," he said, to himself, "instead of the poor little chickabiddies: they have to take the stone floors and hard benches, while the fellows—oh, I would like to lock *them* up!"

It may have been because of a certain little saleslady that Policeman McFarlan was more charitable toward the poor "astrays" and less toward the young "swells." He could not but agree, however, that the hour was late for an honest woman, or man for that matter, to be on the street; and his duty as well as his police sense soon asserted itself, and he was on the outlook for the woman in the gray dress and white hat.

MRS. S. M. I. HENRY.

(To be continued.)



A BOY I KNOW.

I KNOW a bright-eyed little boy,
Who lives not far away;
And though he is his mother's joy,
He plagues her, too, they say;
For when his task he's bid to do,
He sits him down, and cries, "Boohoo!
I can't! I can't! I can't! I can't! I can't!"

Yes; whether he's to practise well,
Or do his "horrid" sums,
Or "hippopotamus" to spell,
Or clean to wash his thumbs,
It matters not; for with a frown
The corners of his mouth go down—
"I can't! I can't! I can't! I can't! I can't!"

Oh, what a joyful day 't will be
For mother and for son,
When smiling looks they both shall see
Beneath the smiling sun!
For in his heart he knows 'tis stuff,
And knows that if he tries enough,
He can! he can! he can! he can! he can!
—Laura E. Richards.

A YELLOW QUEEN AND HER SUBJECTS.



WISH to tell the young people of the INSTRUCTOR family about a beautiful Yellow Queen, who is not only pretty to look at, but is also the most wonderful mother I ever saw or heard of. Her children never quarrel, nor get jealous of one another. She never has to scold one of them, or even tell them to go to work; for they are always busy, either in the house or outdoors, cheerfully attending to their duties; and instead of leaving home as soon as they are old enough to

help, as many young folks do, they remain her dutiful and loving subjects. What do you think of that?

Perhaps I ought not to call them subjects; for where there is no disaffection, there is no need of a ruler; so, after all, this queen is only the mother, and the subjects are her children. And they are such loving children, too! Ten or a dozen of them follow the queen about continually, forming a circle around her, caressing her, and offering her the daintiest food they can prepare.

Now I know you are beginning to think about the size of her family, and the number of the children. Do you doubt that there are a dozen waiting on the queen, and wonder how many more there are, and what they do? Why, there are ever so many more! She never has to hire any servants; for her own children do all the work themselves. Some take care of the babies; some clean the house; others work in the fields, or carry water and food; and a good many are busy all through June and July, and sometimes in August, making its odd six-sided boxes, in which they keep their food. When these boxes are empty, they are often used as cradles for the babies.

But you are still thinking that I am mistaken in regard to the size of the family. Well, you're the ones that are mistaken, this time. The Yellow Queen I am talking about is the

mother of over one hundred thousand children, counting both dead and alive. Just think!—as many as three thousand five hundred new babies in a single day! Where do you suppose the mother finds names for them all? Perhaps she calls them by numbers. Wouldn't it seem queer to have Eighteen-hundred-and-ninety-nine for a name?

Oh, I did n't tell you that the Yellow Queen is a bee, did I? Before a bee is fully developed, it must be, first, an egg; secondly, a larva; and thirdly, a pupa. The queen lays two kinds of eggs,—one for workers, and the other for drones.

As the queen walks over the beautiful cells of honeycomb, some filled with babies and some with food, she comes to one that is empty. Then down she goes, head first, to the bottom of the cell, to examine it. If it suits her, she will draw herself up, and, turning around, will back down into it and deposit an egg. There are always enough bees in a hive, or colony, to keep nice and warm the eggs laid by the queen. In about three days the eggs hatch, not into bees, but larvæ. You would never suspect that one of these tiny white worms, not much larger than a poppy seed, would grow into a bee that could chase the strongest man ever seen. This very often happens, though.

As soon as the baby bee hatches, it is fed by the workers. They always have on hand many cells of bee-bread, and this they mix with honey till they have a substance that looks much like cream, and makes the proper food for bee-larva. The baby bees never have to wait for anything to eat; for their faithful nurses feed them "between-meals" and at all times, so they grow very fast.

These little worms eat and grow in their cells, curled up like sleepy puppies, till they get too large for their skins, and too fat to lie in the bottom of their cells. Then they begin to stretch, and their skins crack and rip open; but, luckily for them, there is another skin underneath each old one. Presently the larvæ straighten out in their cells, and the nurse bees give them some more food, and cover them all up, so no one could see one of them. It is while they are in this state that they are called pupæ.

Just twenty-one days after the egg is laid, the pupa cuts the cover off its cell, and crawls out, a bee. It is very pale and weak at first; but after sipping some honey, and walking about awhile, it grows strong.

Besides the workers, there are the drones, or male bees. These bees never work. While there is plenty of honey to be found, they live in idleness, feasting on the sweets that the workers have toiled hard to store up; but as soon as the flowers fail, these loafers are killed, and their bodies dragged away from the hive by the workers.

A hive full of bees that are at work, is called a colony, and a number of colonies is an apiary. In every apiary there are many queen bees just as wonderful as the one I have told you about. Occasionally strange bees begin

robbing a weak colony; then a tent made of netting is set down over it for a while. Very often robber bees bother the person working a colony, in which case the tent is used for shelter to both the man and the colony he is handling.

MRS. EFFIE BROWN.

A TRUE STORY.

OLD DAPPLE was so tired when haying-time was over, that grandpa said he should rest a whole week, with oats for dinner every day.

"You're the faithfulest old fellow!" grandpa said, stroking Dapple's old nose back and forth lovingly. "Now you shall have a holiday, and munch hay instead of rake it. Wait; I'll trundle the big rake under the mow, so you'll forget there was ever any such thing as work."

Then grandpa went to dinner with grandma and The Twins—everybody called them The Twins, with the capital T's in their voices when they said it.

It was quite late in the afternoon when grandpa asked The Twins to lead out old Dapple to water.

"Let him stay and drink as long as he wants to," he called after them. "You need n't wait; he knows the way back alone."

So old Dapple stood and drank his fill of the clear, sweet water, and The Twins ran back to their play. But it was n't long before grandpa saw them coming toward him at a scamper. Both their faces were excited, and they shouted,



SOME OLD-FASHIONED BEE-HOMES.

in a breathless chorus, "O grandpa! grandpa! quick! look up in the mowing-field! Old Dapple's up there rakin' hay all alone, 'thout any rake or any hay! He's goin' back and forth and back and forth like everything!"

And when grandpa got on his "fur-offs" and looked, sure enough, there was faithful Dapple up in the mowing-field, patiently trudging up and down, making neat turns at the end of every "bout"! His tired old legs wavered unsteadily, but he kept on. The afternoon sunshine lay on his rough back, and dazzled his old eyes on the return trips, but he never thought of stopping.

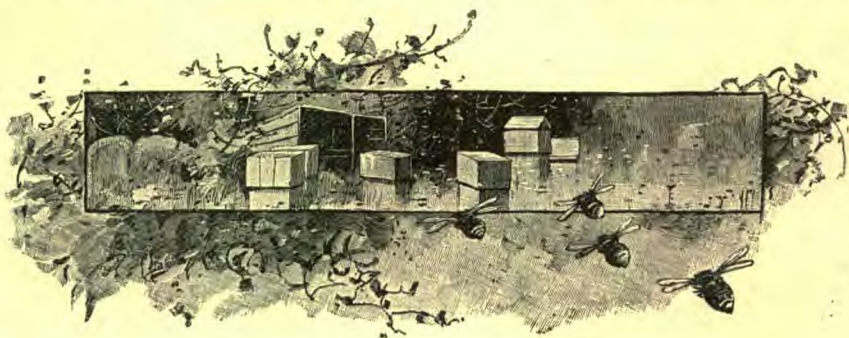
Something suddenly dimmed grandpa's "fur-offs," and he took them off.

"Faithful old fellow!" he muttered. "Go lead him back, children, and give him oats for his supper."

And how The Twins hugged him while they were doing it!—*Youth's Companion.*

WHY NETTLES STING.

THE leaf and stem of a nettle are literally clothed with erect hollow hairs. If one of these hairs is viewed through a microscope, it will be seen that its free end, after tapering to a very fine degree of slimness, finishes as a little knob; while in the other direction, after gradually becoming more robust, it suddenly expands into a large bulb, corresponding to the poison-gland of the adder. The point of the hair is very brittle, and contact with our skin causes the end to snap off, leaving a hollow needle-point, which readily pierces our cuticle, and pressing upon the bulb at the other end, the poison is forced through the central channel, and inflames our blood. It is said that those who just touch the nettle slightly are stung, and that those who grasp it firmly escape. There is just this much truth in it,—that a firm grasp is apt to break the hairs at the thickest parts, where they are too stout to prick. But you can not make sure of firmly grasping and breaking all the hairs that touch you; and if you break a score, and another score just touch your hand sufficiently to prick, you come off badly.—*Selected.*



BIBLE LESSONS AND NOTES

SABBATH-SCHOOL LESSON.—NO. 11.

(September 9, 1899.)

RESURRECTION OF LAZARUS.

Lesson Scripture.—John 11:1-52.

Memory Verses.—Vs. 25, 26.

TIME.—A. D. 30. PLACES: Perea, Bethany, Jerusalem. PERSONS: Jesus, Martha and Mary, Lazarus, disciples, Jews, Pharisees, Caiaphas.

QUESTIONS.

1. While Jesus was preaching in Perea, what message came to him? John 11:3. What message did Jesus return to Martha and Mary by the messenger? V. 4. What seeming lack of interest did he manifest? V. 6; note 1.

2. When Jesus prepared to go to Judea, what did his disciples say? V. 8. What was his reply? Vs. 9, 10; note 2. What did he say was his purpose in going? V. 11. What misconception of his words did the disciples have? Vs. 12, 13. With what words did Jesus correct them? Vs. 14, 15; note 3.

3. When Jesus reached the vicinity of Bethany, who met him, and with what words? Vs. 20-22. In reply, what did Jesus say? V. 23. To what time did Martha look for the fulfilment of Jesus' words? V. 24.

4. What wonderful truth concerning himself did he then utter? Vs. 25, 26. In answer to the question, "Believest thou this?" what did Martha say? V. 27. What did she then do? V. 28. As Martha responded to the call, what did the Jews who were with her do? V. 31. Describe her meeting with Jesus. V. 32.

5. How was Jesus affected by the scene of affliction? Vs. 33, 35, 38. As the people beheld his sorrow, what superficial view did they take? Vs. 36, 37; see "The Desire of Ages," page 533.

6. Coming to the tomb, what did Jesus say? V. 39. How did Martha look upon his request? *Id.* What did Jesus say to her? V. 40. What prayer did he then offer? Vs. 41, 42.

7. In what manner and with what words was the resurrection accomplished? Vs. 43, 44. What were the two immediate results of this miracle? Vs. 45, 46.

8. How did the Jewish leaders now regard Christ's work? Vs. 47, 48. What did Caiaphas especially have to say? Vs. 49, 50. What does the Scripture say concerning his words? Vs. 51, 52; note 4.

NOTES.

1. The messengers [who brought the message from Martha and Mary] doubtless expected that he would have returned with them at once, but *he saw things in a higher light*, and moved on a different spiritual plane. Instead of going with them, therefore, he dismissed them with the intimation that the sickness would not really end in death; but would be overruled by God to his own glory, by disclosing that of his Son—Jesus himself. *It was from no indifference that he thus delayed*, though it left his friends to bitter disappointment, and himself to the suspicion of neglect. He "loved Martha, and her sister, and Lazarus," says John. But still *he delayed in obedience to a higher counsel than man's.*—*Geikie*.

2. "Jesus answered, Are there not twelve hours in the day?" I am under the guidance of my Father; as long as I do his will, my life is safe. My twelve hours of day are not yet ended. I have entered upon the last remnant of my day; but while any of this remains, I am safe. "If any man walk in the day," he continued, "he stumbleth not, because he seeth the light of this world." He who . . . walks in the path that God has marked out, can not stumble and fall. . . . "But if a man walk in the night, he stumbleth, because there is no light in him." He who walks in a path of his own choosing, where God has not called him, will stumble. For him day is turned into night, and wherever he may be, he is not secure.—"The Desire of Ages," page 527.

3. To the twelve disciples the course which Jesus had already pursued in this matter seemed strange indeed. But now he adds even more. He first says that Lazarus sleeps, then follows this with the word that he is dead. Such doctrine seemed dark and gloomy to men who had been taught, as they had, that the soul is immortal. The Sacred Scriptures give no hint of any future life, except by a resurrection from the dead; but the Jews had imbibed from their heathen neighbors the doctrine of inherent immortality, and had consequently lost sight, in a measure, of the Bible doctrine of life only through the Seed of the woman. And now Jesus says, "I am glad for your sakes that I was not there, to the intent ye may believe." Though his teaching and ways

were counter to all *their* belief and practise, it was his way of showing them his love and power, and of inspiring them with faith in him. Let us not despise God's providences, even though he may use the hour and power of death to show us life. The darkest part of life is the time of richest blessing to all who trust. Therefore let every experience lead, not to doubt, but to a stronger faith in God.

4. God often uses evil men in fulfilling his plans, though they know it not. Little did Caiaphas realize the prophetic truthfulness of his words, the mighty import of what he uttered. Still it was true that he spoke not of himself, but by the Spirit of Prophecy. "God works in a mysterious way, his wonders to perform." He can work the faculties of men, and yet at the same time the men be free moral agents. This is beyond man's comprehension, but not beyond his faith. He may believe and know the preciousness and comfort of this thought in every time when evil men conspire against him, and the cause of error *seems* to triumph. It was so in the day of the Saviour; it is so now.

SABBATH-SCHOOL LESSON.—NO. 12.

(September 16, 1899.)

PRIESTLY PLOTTINGS.

Lesson Scriptures.—John 11:53, 54; Luke 14:1 to 15:10.

Memory Verses.—Luke 14:12-14.

TIME: A. D. 30. PLACE: City of Ephraim, Pharisee's house. PERSONS: Jesus, disciples, Pharisees, scribes, lawyers, publicans, sinners.

QUESTIONS.

1. In harmony with the counsel of Caiaphas, what did the Jewish leaders determine to do? John 11:49-53; note 1. Knowing their purpose, what did Jesus do? V. 54.

2. With whom was Jesus brought into contact? Luke 14:2. What was the place and time? V. 1; note 2. Before healing the man, what question did he ask? V. 3. What did he then do and say? Vs. 4, 5.

3. What did Jesus note concerning the action of the guests who were present? V. 7. What parable did he relate by way of instruction? Vs. 8-10. What principle did he then state? V. 11. What did he further say to his host? Vs. 12-14.

4. What remark was then dropped by one present? V. 15. Relate the parable that Jesus gave as a rebuke to the selfishness of the Jewish people. Vs. 16-24; note 3.

5. How much interest in Jesus' work was now shown by the people? V. 25. What testing truths did Jesus place before them? Vs. 26, 27; note 4. What illustrations did he use to make his meaning plain? Vs. 28-32. What conclusion did he draw? V. 33.

6. As a symbol of his hearers' spiritual condition, what did Jesus say in reference to salt? Vs. 34, 35; note 5.

7. What class of people now became the Saviour's audience? Chapter 15:1. What complaint was immediately made by the Pharisees? V. 2. What parable did Jesus use to show the righteousness of his course? Vs. 3-6. What reason did he then give for associating with sinners? V. 7.

8. To show that he was justified in working for publicans and sinners, what further illustration did Jesus draw from life? Vs. 8, 9. What did he say is the experience of heaven upon the conversion of the ungodly? V. 10.

NOTES.

1. Acting under the inspiration of Satan, the Jewish teachers regarded the raising of Lazarus with the utmost alarm. Having closed their eyes to the truth, they could see nothing more, as the result of so wonderful a miracle, than the loss of their influence over the people. But behind all this was a hatred more deep. Satan saw in the resurrection power of Christ that which would finally prove the destruction of his work and kingdom. All his wrath was therefore stirred up, and he determined to put an end at once to Jesus' work. The very fact that this miracle was the immediate cause of the death of the Son of God, should lead us all to see the importance of the question of the resurrection, and to study it so earnestly that we may have a knowledge which will keep us in the days of peril before us. Upon the knowledge of the resurrection power depends the salvation of the soul. See Eph. 1:17-20; Phil. 3:7-11.

2. Time after time, Jesus chose the Sabbath day in which to perform his acts of healing, not to oppose himself to the customs of his time, simply for the sake of so doing, but to show the true spirit of his Father's holy day. The whole object and desire of his heart was to remove from the law of God the darkness of tradition, and lead his people to see and experience it as a law of love and liberty. For this reason the lesson was often repeated, even during these closing weeks of Jesus' ministry.

3. The parable of the supper is one of the most important ever given by the Saviour. By reference to Matt. 22:1-10, it will be seen that there had been a "dinner" time; while in the present lesson it is "supper" time. The time of dinner was when Jesus in per-

son (and through his apostles for three and one-half years afterward) invited the Jewish people to the gospel feast. But they rejected his call, and became so rebellious against God that they were, as a nation, finally destroyed. Matt. 22:7. Because of its rejection by the Jews, the gospel invitation was sent directly to the Gentiles, and continues to our own time,—to the time of supper. Excuses heaped upon excuses have been made, but the Lord mercifully continues his invitation. The supper call is the *last* call. To refuse now, by making excuses, is but to choose destruction as our final portion.

4. The word "hate" (Luke 14:26) should be understood in the sense of loving less. Compare Matt. 10:37; Mark 10:29, 30; Matt. 22:36-40.

5. To the Jews, salt was almost indispensable, "being to them not only an appetizing condiment in the food both of man (Job 6:6) and beast (Isa 30:24, margin), and a most valuable antidote to the effects of the heat of the climate on animal food, but also entering largely into their religious services as an accompaniment to the various offerings presented on the altar. They possessed an inexhaustible and ready supply of it on the southern shore of the Dead Sea. . . . It is a well-known fact that the salt of *this country*, when in contact with the ground, or exposed to rain and sun, does become insipid and useless."—*Smith's "Bible Dictionary."* The illustration of salt was most fitting and forcible. Though God had designed the Jews, his people, to be the "salt of the earth," they had become worldly, and lost the savor of righteousness. Like the salt, which, having lost its savor, is worthless, and a blight to all upon which it falls, so they had become a hindrance and a curse to men who were seeking after God.

INTERNATIONAL LESSON.—NO. 11.

(September 10, 1899.)

ENCOURAGING THE BUILDERS.

Lesson Scripture.—Haggai 2:1-9.

Helpful References.—Haggai 1:1-15; 2:10-23; Joshua 1:1-9; John 14:1-14; Rom. 8:31-39.

Golden Text.—Haggai 2:4.

QUESTIONS.

Why had the work of rebuilding stopped? What prophet was commissioned to urge it forward? Through whom were the people to be addressed? What was promised for the encouragement of the builders? When did Haggai begin to prophesy? How long after the return? What place is named? What rulers and leaders are mentioned? What is said of Haggai? To whom does the prophet speak? By whose authority? How long had it been since the beginning of the captivity? What would some of the old men remember? In what did the first temple greatly surpass the second? What is the prophet's exhortation? What had they to encourage them? What covenant would the Lord surely keep? What was the Lord about to do? What was the result of these commotions among the nations? How was the work done? Under whose direction? Whom did the Lord say would come? With what should the second temple be filled? In what respect should the latter temple surpass the first? How and when was this fulfilled? Is the second temple still standing? What promise is expected? How would the "shaking" help the work? What is promised to Zerubbabel?

NOTES.

1. The rebuilding of the temple was hindered for fourteen years, through the enmity of the Samaritans and the command of the Persian rulers. God now sends them a message through Haggai and Zechariah. Haggai 1:7-15; Zech. 4:6, 7, 8. The exact date of Haggai's prophecy was "in the second year of Darius,"—B. C. 520, sixteen years after the return from captivity.

2. Though there are but two short chapters in Haggai, they supply an interesting link in the story of the returned captives, and are full of force and encouragement. The people had given up to what they supposed were insurmountable difficulties, concluding that the time had not yet come that the Lord's house should be built. They had builded their own houses in the interval, and, swallowed up with their own interests, had neglected the house of God.

3. In the first chapter of Haggai, the prophet throws a light upon the results of their selfishness and unbelief, describing their temporal conditions as disappointing and disastrous. They had sown much, and reaped little, and put their earnings into a bag with holes. The dew of heaven had not fallen, and there was drought and scarcity, because God's house was waste, and every man ran "unto his own house." The people were in a condition to respond. They were ashamed of their ingratitude and selfishness. Zerubbabel, the governor, and Jeshua, the high priest, led the people to obey the voice of the Lord. The zeal that had animated them fourteen years before came upon them afresh. They returned to their first love, and without delay began again to build the house of the Lord.

4. No sooner was the work begun, than the Samaritans were all alive again. This time, however, the man who was governor of Samaria, and his companions, were much more fair-minded than were those who had carried on the former opposition. . . . They tried to stop the work on the building; but the decree of the false Smerdis was of no avail any more, since he was dead. And the Jews, having the decree of Cyrus, whom they knew was respected by Darius; and knowing the work of restoration that was being carried on by Darius against the reaction attempted by the Magians through the false Smerdis, they were rather anxious that this cause should be brought to the notice of Darius. And being still urged on by the prophets, they refused to receive any commands from the Samaritans, or to pay any attention to their wishes.—*"The Great Empires of Prophecy,"* page 68.

5. Christ was the foundation and life of the temple. Its services were typical of the sacrifice of the Son of God. The priesthood was established to represent the mediatorial character and work of Christ. The entire plan of sacrificial worship was a foreshadowing of the Saviour's death to redeem the world. . . . By virtue of his death and resurrection he became the minister of the "true tabernacle, which the Lord pitched, and not man." . . . "Behold the man whose name is The Branch; . . . he shall build the temple of the Lord; and he shall bear the glory, and shall sit and rule upon his throne; and he shall be a priest upon his throne."—*"The Desire of Ages,"* pages 165, 166.

INTERNATIONAL LESSON.—NO. 12.

(September 17, 1899.)

POWER THROUGH THE SPIRIT.

Lesson Scripture.—Zechariah 4.

Helpful References.—Ezra 6:14-22; Matt. 3:13-17; Joel 2:28-32; John 16:1-15; Acts 2:1-4; Gal. 5:16-26.

Golden Text.—Zech. 4:6.

QUESTIONS.

When did the incidents of this lesson occur? At what place? From whose prophecy is the lesson taken? What is known of the author? What is a vision? Who appeared to the prophet? What did he first see? What was the object of the bowl and pipes? What were their respective positions? What question did the prophet ask the angel? What was the answer? What was the great object of the vision? What was meant by the mountain? When had the foundation of the temple been laid? What doubt had risen in the minds of some? What assurance did the angel give the prophet? Who was watching over the work? Where were the olive-trees? What question did the prophet ask? What peculiarity did he notice? What was the angel's explanation? For what institutions did Zerubbabel and Joshua respectively stand?

NOTES.

1. There are numerous records of visions of the prophets. A person in vision was in a condition somewhat similar, and yet in some respects very unlike, the condition of one in a trance, as understood to-day. Daniel says: "Therefore I was left alone, and saw this great vision, and there remained no strength in me. . . . Then was I in a deep sleep upon my face," neither was "there breath left in me." The medium of spirits breathes, has closed eyes, and fails to fulfil the condition described as the condition of a true vision from God. The true prophet has at first no strength; but is afterward strengthened, and through the vision is breathless, sustained miraculously, and has open eyes. The angel Gabriel ministered to Daniel, and doubtless to all other prophets; for he says "there is none that holdeth with me in these things, but Michael [Christ] your prince." In the Revelation the angel who ministered to John is recorded as saying, "I am thy fellow servant, and [the fellow servant] of thy brethren that have the testimony of Jesus; . . . for the testimony of Jesus is the spirit of prophecy." Doubtless it was Gabriel who wakened Zechariah.

2. The candlestick, or chandelier, was patterned after that which stood in the holy place of the tabernacle and temple, but some features are added. Both were of gold, both had seven lamps, and both were fed with olive-oil. The two olive-trees, the bowl on the top, and the seven pipes are features not mentioned in the description of the golden candlestick of the sanctuary. The candlestick of the sanctuary was a type; the candlestick of the vision is a symbol. Indeed, its use as a symbol is not uncommon. The seven churches (Rev. 1:12) are seven candlesticks. . . . The church should be pure as gold, and shine like light.—*Lesson Commentary.* But John sees seven lamps of fire burning before the throne in the heavenly sanctuary, and they are explained as meaning "the seven spirits of God,"—the fulness of his Spirit. The church, filled with the Spirit, would indeed be as a lamp of fire." Was the restored worship of Israel to go forth "as a lamp that burneth"?—So the prophet

seems to indicate, and so the history of their reformation would seem to prove.

3. "These are the two anointed ones, that stand by the Lord of the whole earth." Rev. 11:4 says, speaking of the two witnesses: "These are the two olive-trees, and the two candlesticks standing before the God of the earth." "Evident allusion is here made to Zech. 4:3-6, where it is explained that the two olive-trees are taken to represent the word of God; and David testifies, 'The entrance of thy words giveth light,' and, 'Thy word is a lamp unto my feet, and a light unto my path.' Written testimony is stronger than oral. Jesus declares of the Old Testament Scriptures, 'They are they which testify of me.'" In the New Testament alone we find his words recorded. "These declarations and considerations are sufficient to sustain the conclusion that the Old and New Testaments, one given in one dispensation, and the other in the other, are Christ's two witnesses."—*"Thoughts on Daniel and Revelation,"* page 499.



The Great American Trusts.—These monstrous modern plunderers, which ruthlessly strangle honest competition in their bold methods of getting wealth, are at last beginning to receive attention from the various States of the nation. A conference to consider them is to be held in Chicago, beginning September 13. Fifteen governors have already sent lists of delegates, while thirty-five have promised to make appointments. Among those appointed by Governor Roosevelt, of New York, are Senator Depew, who is also chairman of the executive committee of the Vanderbilt lines, and Dr. Albert Shaw, editor of the *Review of Reviews*. It is to be hoped that something will be done to check these immense combinations, which are becoming a burden to the common people.

A Naturalized British Subject.—Becoming a citizen of England by naturalization is, in itself, a rare occurrence; but when an American citizen takes such a step, it is no wonder that general surprise and extended comment are drawn out. Such action has been taken by William Waldorf Astor, the well-known millionaire of New York City. His course has elicited much unfavorable discussion by the press, and is not at all pleasing to the leading men of this country, who naturally dislike to see an American thus publicly express his choice for another country. But the fact that Mr. Astor is so large a property-owner in New York is the chief point of interest in his case. There has always been much prejudice in this country against foreign ownership of property in this nation. The evil of such a course has been exemplified in Ireland and other places in the past, much trouble having followed the unrestricted possession of wealth by aliens; and it is altogether likely that the course of Mr. Astor will draw out legislative action bearing on such cases.

French Impulsiveness.—It is not likely that any other nation in the world can show so much temper, and so quickly become hot-headed, as can France. This is at least true of the so-called civilized peoples, though there may be some exceptions among the mixed peoples of the Central and South American republics. This lack of self-restraint must have a cause, and we can see it in nothing more plainly than in the inherited tendencies to rebellion and mob violence shown in the French Revolution. Bloodshed appears to attend every prominent affair of the nation. The Dreyfus case has upset the government once, and bids fair to do so again. It is surprising that as M. Labori, junior counsel for Dreyfus, was walking to the court with his wife and companions in the early morning, to begin a cross-examination of the former minister, Mercier, he should be shot by an assassin, evidently to prevent the entangle-

ment of the former chief in his words of doubtful veracity. Then as a group of enemies of Dreyfus were discussing the matter on the street in Paris, they passed a few words with some of his friends, and a bystander immediately produced a revolver, and shot three men who were in no way connected with the case. These things bring to mind the scripture that declares that the sins of the fathers shall be visited upon the children, unto the third and fourth generations.

Modern Excursions.—As we see, on every hand, excursions at rates within the reach of by far the larger part of the common people, we can not help thinking now much greater are the privileges of the present generation than where those of the preceding one. Nowadays the opportunity is often given to young people to go five hundred miles or so to visit Niagara Falls, or to see a large city, neither of which, perhaps, their parents saw in a lifetime; and this, too, at an expense often of less than a week's wages. As these excursion-trains arrive at small country places, young people may be seen hurrying to get aboard with their lunch-baskets, the very coaches and engine being wonders in their eyes. This is on the occasion of their first trip. They go away for a day, or maybe a week, and return home to tell all their friends of the wonders they have seen. Thus the desire to see and hear is passed on, and the next occasion is improved by other recruits. While there is no doubt that many evils attend these excursions, they are not necessarily a part of the program. It can not be denied that there is no way by which information can be sooner acquired, or one can better become intelligent concerning the world in general, than to get out and see for himself. The answer given to a young negro, who reproved a companion for "gadding about so much," with the saying, "A rolling stone gadders no moss," is right to the point. The traveler replied, "No, but he gadders polish." Of course these blessings, like all others, should be used with moderation tempered with good judgment.

H. E. SIMKIN.

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In order that the workers on the INSTRUCTOR may have an opportunity to attend camp-meeting, it has been decided to omit one number of the paper. No. 36, therefore, will be dated September 14. Two lessons are given this week, that no inconvenience may result from the omission; and we shall try to make the paper so much better that it will be no loss to you.

DID you ever try to sweep and dust a room in the deceptive half-light that comes between daylight and dark, and the next morning throw open the blinds, and invite the sunshine in to inspect your work? Ah! then you have felt as if your careful effort was worse than wasted. There was dust in unexpected places, the carpet was clean only in spots, and cobwebs triumphed in corners you were sure you had cleaned. The room looked worse than it did at first, and the only way to arrive at a satisfactory result was to begin at the beginning, and do the work all over. It is impossible to do, in the dark, work that will stand in the searching light of day. Just so in spiritual things. If we are in darkness, we can not work the works of light: we must walk in the light, work in the light, if our effort shall stand the test.

BY THE WAYSIDE.

NO DAY dawns that does not bring to each one of us some beautiful opportunity to sow the precious seeds of love. The following true incident, related in the *Sunday-School Times*, shows how one such seed sown by the wayside bore fruit unto life everlasting:—

It was a beautiful autumn day in the mountains of North Carolina. As I walked along the lonely mountain road, I thought of how the Master loved the mountains, and the people who lived among them. Soon the splashing of water reminded me that I was near one of the beautiful springs that abound in that region. An old colored woman was there busily engaged in washing. In response to my greeting, she lifted her head from the tub over which she was bent, and wiped the perspiration from her face. It was a hard, wicked-looking face, but softened a little as a few pleasant words were spoken to her. I found she was not a Christian, and invited her to attend our next prayer-meeting in the schoolhouse near by, where I had just been called. She promised to come, and I went my way. The next Sunday night I noticed a conspicuous sunbonnet in the schoolroom where our meetings were held, and in its depths was

revealed the now smiling face of the woman I had met at the spring.—Aunt Mary, as she was called. She continued to attend these meetings; and one night when an invitation was given for those who wished to become Christians to come forward, she was among them. The presence of the Holy Spirit was manifest in power, but with no noisy demonstration. Quietly, and very much in earnest, she consecrated herself to God.

Two years passed, and one day the Angel of Death entered her lowly cabin. During those years she had given abundant evidence of having passed from death to life, and my thoughts turned with gratitude to that meeting by the spring.

We shall "pass this way but once." Are we improving or neglecting the opportunities given us to sow the seeds of kindly words and deeds as we go?

THE MISSIONARY READING-CIRCLE.

At its July meeting the Foreign Mission Board passed the following:—

Whereas, There is great need that our denominational work be rapidly extended into the regions beyond; and,—

Whereas, In order to accomplish this, laborers and money are necessary; and,—

Whereas, This makes it imperative that we educate ourselves, and especially our children, in regard to the needs of the foreign fields and requirements to become efficient workers therein, therefore we recommend that—

1. A missionary reading-circle be organized in every Conference, church, and family of our people.
2. That the conference mission secretaries, recommended by the last General Conference, be the head of such circles in their respective conferences.
3. That the *Missionary Magazine* be the principal organ of information for these reading-circles.
4. That we encourage each family in our denomination to become a subscriber to the *Missionary Magazine*.

The object of these resolutions is apparent to all; namely, to impart information to our people concerning the needs, conditions, and progress of our work in foreign fields.

While this was being planned, members of the General Conference Committee, the publishing house at Battle Creek, Mich., and other leading brethren were planning for another line of work to be taken up by our churches, tending toward the qualification of our young people to engage in the Lord's work.

They proposed to create a library of some of our best denominational books, and conduct studies in the same. The Review and Herald Publishing Company volunteered to publish this library for seventy-five cents a year, to subscribers, there to be at least four issues each year. This library is to include such books as "Steps to Christ," "Thoughts on Daniel," "Thoughts on Revelation," etc. Outlines of study will be prepared, and the work so arranged that those with limited education can readily carry it. The books will be so cheap that those most needy will be able to procure them.

As soon as the leading brethren learned what had been planned by the Foreign Mission Board, they said: "It takes both plans to make a complete one. Let both be merged into one. Let the name be 'The Missionary Reading-Circle.' Let the library be the basis for studying our denominational literature; and let the *Missionary Magazine* be the basis for the study of the needs and opportunities for work in other fields."

Therefore, instead of having two reading-circles, it is designed to have but one. We trust every family will join the circle, and take part in the study.

The lessons will begin about October 1. Those not having the books should take the library for the study on the tenets of our faith, while those not taking the magazine should subscribe at once. The price for the library is seventy-five cents a year, while the *Missionary Magazine* is twenty-five cents. Let all who wish both, send in their order at once, either to the Review and Herald, or to the Foreign Mission Board, 150 Nassau St., New York

City. The price for both for one year is one dollar.

Individuals can order through their librarians. Correspondence is solicited. Address either the Foreign Mission Board, 150 Nassau St., New York City, or the Review and Herald, Battle Creek, Mich.



THE PROCESS OF DIGESTION.

AS THE food leaves the mouth, it passes into a tube about nine inches long, called the esophagus. The walls of this tube are partly muscular, and the food is carried downward by muscular contraction. A circular muscle closes the stomach at the termination of the esophagus, making a sort of door, which opens when food enters the stomach, and closes as soon as it has passed through.

The stomach is a pear-shaped organ, capable of holding from one to two quarts. It is the principal organ of digestion. The walls of the stomach contract, and thus churn the food. This churning motion is called "peristaltic action," and is also found in the intestines. The membranous lining of the stomach is covered with minute glands, called "peptic glands," which secrete gastric juice during the digestive process. This juice is intensely acid. The pulp formed by the food in the stomach, mixed with the gastric juice, is called "chyme." This chyme, when mixed with the intestinal juices, is a milky fluid, ready for absorption, and is called "chyle."

The small intestine is eighteen or twenty feet long, and an inch and a quarter in diameter. It joins the colon, or large intestine, at the lower right-hand portion of the abdominal cavity. The glands in the mucous lining of the intestine secrete an alkaline digestive fluid, called "intestinal juice;" and here, too, are giant cells, which defend the body from germs. During digestion the unrestricted contraction of the muscular walls is necessary to health. How we sin against our bodies when we wear clothing that interferes with this marvelous process! The stomach fluid is acid, and the intestinal juice is alkaline. Who can tell what effect these juices have upon each other?

The small intestine has many folds of membrane, glands, and cells, all busy doing their work. A large number of fine, hairy processes, called "villi," project inward, giving the inside of the intestine the appearance of velvet. Each "villus" contains blood-vessels and lymph-channels. These hairy projections absorb the food after it has been reduced to a fluid, sucking up the nutrition, and separating and rejecting matter to be expelled from the body. According to authorities on physiology, there are over ten million of these villi in the small intestine.

The colon, or large intestine, is about five feet long, and much larger in diameter than the small intestine. It receives the indigestible portions of food, with secretions that hasten the expulsion of fecal matter. This part of the intestine has three divisions,—the "ascending," the "transverse," and the "descending." There are but few glands in the colon, and villi are almost entirely absent.

The fearful deformity of the transverse colon, in those who torture their bodies by wearing tight clothes, is the cause of many diseases. Surely those who know something of how "fearfully and wonderfully" we are made will not continue to transgress nature's laws. "The transgression of physical law is transgression of God's law. Our Creator is Jesus Christ. He is the author of the physical law, as he is the author of the moral law. The human being who is careless and reckless of the habits and practises that concern his physical life and health, sins against God." As professed commandment-keepers, we shall do well to ponder this quotation, and seek God to know how to apply these truths.

MRS. M. D. MCKEE.