

The YOUTH'S INSTRUCTOR

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No. 21



THE CANDLE-TREE, OR PARMENTIERA

Its original name in India is candle-tree, for its peculiar fruit resembles candles and contains sixty per cent of very fat oil, used by natives for lamps and also as candles.

CALIFORNIA sends word in regard to the Temperance INSTRUCTOR that it has already reached its fourteen-thousand mark this year; and its workers expect to double that number before they finish.

THIRTY-SEVEN million dollars' worth of breakfast foods, including food preparations, was manufactured in the United States in 1909, according to figures just completed by the Census Bureau.

"Do not conclude that other people are not sincere because they do not see things just as you do. Much of the sorrow of this old earth could be averted, if only we could learn to be tolerant of differences of belief, and respect the sincerity of those with whom we do not agree."

ACCORDING to a letter received in London from a Chinese correspondent of the *Times*, the Standard Oil Company has made an offer to the Chinese Republic for the sole rights of exploiting petroleum in China for a term of years in consideration of an immediate loan of \$35,000,000 gold.

UNDER the new proposed tariff regulation, the importation or sale of aigrets from the heron is prohibited; also the skins or feathers of any other kind of wild bird, domestic or foreign, except the ostrich. Furs are taxed from ten to fifty per cent, according to whether they are dressed or undressed.

MISS MAY JENSEN worked a few days last week selling the Temperance INSTRUCTOR at Litchfield, Minnesota. She was able to place about two hundred in that city. We hope that the work accomplished will be the means, in the hand of the Lord, of staying the tide of intemperance in that locality.

THE April number of the *Medical Evangelist* is full of interesting articles. "Minor Matters That Matter Much" is a suggestive article for all who are or expect to be connected with a sanitarium as patient, official, or helper. Fifty cents will bring you the *Medical Evangelist* for one year. Address the publishers at Loma Linda, California.

Destroying the Bible

A LUNATIC entered a city church and taking his stand by the side of one of the gallery posts, shouted: "I am going to pull down the church. I am going to pull down the building, I am." Women fainted, men turned pale, children screamed, and just as all were about to stampede, the old minister said to all present, "Just let him try it." We often hear men in the world cry, "I am going to destroy the Bible." Men and women begin to fear, but the voice of the Bible speaks, "Heaven and earth shall pass away, but my word shall not pass away."—*The Standard*.

MISS OLIVE LINDSAY, one of our South Dakota canvassers, while stopping with her sister at Howard, succeeded in placing nearly two hundred copies of the Temperance INSTRUCTOR in the town by persuading ministers, churches, and other organizations to take a quantity of these journals. The experience of Miss Lindsay is suggestive of what might be accomplished by others with careful and determined effort.

Evil-Speaking

IN Titus 3:2 we are admonished to speak evil of no man. This must mean that we are to say nothing in regard to any one which will lessen esteem for the person who is the subject of conversation. The statement I am about to make may be true, but if to utter it will detract from the reputation of any person, it is the part of wisdom to leave it unsaid.

In association with one given to the practise of making derogatory remarks about persons and institutions, I was led to say: "M., I prefer that you would not tell me such things; for I do not want to have them lowered in my estimation, and they are quite sure to be if such reports are given to me." She said, "Well, it is all true." "That is no matter. It is not necessary for me to know it; so I prefer not to hear it." After some further reasoning, she said: "I see things in a different light now. I had always thought myself at liberty to tell anything that I knew to be true."

Doing unto others as I would have them do to me includes speaking of them as I wish them to speak of me. There is necessity of curbing the spirit of gossip and talebearing in ourselves, and by showing ourselves *not* interested listeners, much of it may be discouraged in others.

MRS. D. A. FITCH.

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A SCHOLARSHIP SURE

The 1913 Temperance Instructor is a splendid *Scholarship Proposition*. With it most any student can easily earn a scholarship during the summer vacation. A hustler can earn two or three.

Try it this year, and come back to school in the fall with plenty of money and a consciousness of having done good work.

Write the tract society for particulars.

The Youth's Instructor

VOL. LXI

TAKOMA PARK STATION, WASHINGTON, D. C., MAY 27, 1913

No. 21

Looking Toward the Light

I ASKED the robin as he sprang
From branch to branch and sweetly sang,
What made his breast so round and red.
"Twas looking toward the sun," he said.

I asked the violets sweet and blue,
Sparkling with the morning dew,
Whence came their color. Then, so shy,
They answered, "Looking toward the sky."

I saw the roses one by one
Unfold their petals to the sun.
I asked what made their tints so bright.
They answered, "Looking toward the light."

I asked the thrush, whose silvery note
Came like a song from angel's throat,
What made him sing in the twilight dim.
He answered, "Looking up to Him."

—S. D. Stockton, in the *Christian Herald*.

Universal Sisterhood

LULU M. SPAULDING



LIKE to think of all the people in our world as one great family, and I believe that God wants them to be fathers, mothers, brothers, and sisters, not only in their immediate families, but to all around them. In all our association, we need continually to help and to be helped by one another, and it is because so many live only for themselves that we see so much suffering and evil of all kinds in the world.

Naturally, my attention has turned to those lines of work which belong especially to girls and women, and I suppose those of you who have given this matter serious thought, have, like myself, seen so many places to be filled, both inside the home and out, that at times you have been tempted to regard it as the most important work on earth. I haven't time nor space to mention all that comes to me as being "girl's work," and although I consider a girl's duties in the home the most sacred of all her work, I shall not attempt to do justice to that subject. But I want to talk with the girls a few moments about another of our duties, that of being a help, a true sister, to all boys and men. I am writing of this because it is a part of *our* work. If "boy's work" had fallen to my lot, I suppose I should consider that the greatest work, and should instead be writing to boys about their duty toward girls.

There are many ways in which we can help them, but just now we shall talk only of how girls are likely to influence them most strongly; that is, in their social relations. Very much is said and written to boys about protecting girls and helping them to pure and noble womanhood. Is it not equally important that boys become pure, noble men? And can it be that girls have no responsibility in the matter? Mothers of girls as well as of boys are often heard to say, "If only the girls would do differently, we should have different boys."

Now I am not excusing the boys for wrong-doing. They should have such strong characters that no matter what the behavior of any girl is, they would stand like a rock for what they know to be right. But is there any reason why girls should not be as strong morally?

Both their language and their conduct should be such that their influence will be always uplifting. There are, to be sure, many bad men and boys; however, very few of them are so bad as not to recognize in a girl who is in every way truly modest, one who *must* be treated with respect. I know a young lady who firmly

but kindly resented an unbecoming attention thrust upon her. The young man, looking earnestly at her, said, "Miss R., if more girls were like you, we boys wouldn't be as bad as we are."

In the matter of dress, we as girls and women (and especially those of us who claim to be "a light to the world") should be very careful. When indulging in gay, showy adornment or dressing in ways that can only arouse impure thoughts, we little realize what a stumbling-block we are laying in their path. A few days ago the newspaper recorded a heinous crime committed by a young man still in his teens. While the police were looking for him, he ended his own life, as it was no longer of much use to him; and with his cold form was found a note telling of his sorrow for the wrong the moment after it was done, and showing plainly the part that woman's dress had played in his downfall. We often hear of remarks made by men as women and girls dressed according to the demands of fashion pass them. Men write articles for the papers, strong in denunciation of these sights which are daily paraded before them; still, if any change can be seen, most of the fashions grow worse rather than better. We may contend that they should not allow such things to influence them. No, and if they have a strong enough hold on the Lord, they will not; but how much better for us not only to make it easier for all, but to help guide the feet of the weak ones to the only place of safety. Can we afford to be in any degree responsible for the possible results of wrong influence in this matter? Surely, as followers of Jesus, we can not follow the fashions, and especially those that are in any way detrimental to those around us.

Girls are often boastful of the influence they can exert over boys, leading them to do and go quite against their own judgment. Most boys seem to have the mistaken idea that if a girl urges anything upon them, it is unmanly to refuse her. It is certainly unwomanly in a girl to take advantage of this sentiment and urge them against their convictions of right. Another idea that prevails among young men is that it is a mark of stinginess to be at all careful in the expenditure of money. It is not necessary to real enjoyment that they be always spending for us, and if we regard their real welfare as we should, we surely shall encourage in them a spirit of true economy.

Girls who undertake to do faithfully this part of their work will often find their efforts unappreciated. Still, some day they will doubtless realize that they have

helped to mold the characters of those around them. While the results that follow will more than repay any girl for faithful performance of this duty, the demand for true sisters is doubly urgent among girls who know of the great work to be done before Jesus can come. Our efforts in this direction will not only help to develop in the boys characters that will enable them to answer some of the urgent calls for reapers in the wide harvest-field, but will help the girls to become the true women that are needed in this closing work.

"No one can give place in his own heart and life for the stream of God's blessing to flow to others without receiving in himself a rich reward. The hillsides and plains that furnish a channel for the mountain streams to reach the sea suffer no loss thereby. That which they give is repaid a hundredfold. For the stream that goes singing on its way, leaves behind its gift of verdure and fruitfulness. The grass on its banks is a fresher green, the trees have a richer verdure, the flowers are more abundant. When the earth lies bare and brown under the summer's parching heat, a line of verdure marks the river's course, and the plain that opened her bosom to bear the mountain's treasure to the sea, is clothed with freshness and beauty, a witness to the recompense that God's grace imparts to all who give themselves as a channel for its outflow to the world."—*"Mount of Blessing."*

Will it not pay us to be the true sisters that all boys so much need? Then we shall have the pleasure of seeing them better, purer, and truer here, and shall, without doubt, meet many of them in the kingdom of God because of our efforts.

Before It Is Too Late

If you have a gray-haired mother
In the old home far away,
Sit you down and write the letter
You put off from day to day.
Don't wait until her weary steps
Reach heaven's pearly gate,
But show her that you think of her
Before it is too late.

If you have a tender message,
Or a loving word to say,
Don't wait till you forget it,
But whisper it to-day.
Who knows what bitter memories
May haunt you, if you wait,
So make your loved one happy
Before it is too late.

The tender words unspoken,
The letters never sent,
The long-forgotten messages,
The wealth of love unspent—
For these some hearts are breaking,
For these some loved ones wait;
Show them that you care for them
Before it is too late.

—George Bancroft Griffith.

Why Be a Missionary?

THIS is the grandest period in the world's history in which to live. It is grandest because of the opportunities before us of giving to the world the last gospel message. We pray, "Thy kingdom come." Do we as young people realize the privilege we have of helping to answer our own prayer by doing our part in announcing to the world the soon coming of that kingdom?

To every disciple is given the command, "Go ye into all the world, and preach the gospel to every creature." Have you heard the call? It is not enough that we busy ourselves with things of minor importance, though it is true that service for God begins in

the faithful performance of home tasks. The burden of proof lies with us to show why we should continue to allow our influence to be restricted within narrow limits, when the whole world lies in darkness and is calling for light.

You may plead that you have not received a special call, the conference or Mission Board may not have asked you to go to a foreign field; but is that a sufficient excuse why you should not prepare yourself to do pioneer work? It is not that you have not had a special call to go: have you a special call to stay? Get the preparation, and the call will come.

Of the present opportunities, the Saviour himself says, "Behold, I have set before thee an open door, and no man can shut it." Not only is this door of mercy opened inwardly that we with our petitions may enter and may approach the throne, but it opens outward, also, that beams of mercy may shine into the hearts of men, giving them a desire that only the gospel can satisfy. Instances are many where the workers have found men whom the Spirit of God had prepared to receive their message. Just as truly as God spoke to Cornelius telling him to send for Peter, so is he preparing men to receive his messengers to-day.

An instance of this kind was related recently by Elder Spicer, of two missionaries in Valparaiso who did not know how they would ever be able to reach the people of that city, entrenched as they were in false religion and idolatry. They were accosted on the street by a man who recognized them as the very ones he had been shown in a dream. Day after day he had watched for them, and their first words, "Praise the Lord, O my soul!" convinced him that they were the ones for whom he was looking, as those were the words he had heard in his dream. From that beginning believers were raised up and a church established. Was it not worth while for them to go?

Perhaps just such experiences await you. Why not begin at once to prepare to work for the Master? First of all is the preparation of heart and a willingness to serve. Study the fields, the lives of missionaries, and your Bible. Read of the sacrifices that have been made to carry the gospel, and what it cost to get it to you; then ask yourself why you should not be a missionary.

JOHN W. MILLER.

Gentle Measures Win

IN all lands, the experience of God's people in overcoming sin is remarkably similar. One of our training-school students, a young carpenter's apprentice who accepted the truth at the time of the Hiroshima tent-meeting, related this experience in one of his testimonies: "For a long time I tried to overcome a besetting sin, but always failed to come off victorious when the temptation came. One day I was sweeping the dormitory and had a great deal of trouble in gathering up the lint that persisted in blowing hither and yon whenever I made a stroke with the broom. Failing to capture it with vigorous strokes, I tried more gentle measures, with perfect success. The Lord then called my attention to the fact that getting rid of sin was like cleaning house. Vigorous measures in our own strength are useless, but the quiet working of the Spirit will accomplish wonders." H. F. BENSON.

Tokio, Japan.

COUNT that day lost that does not bring you into closer relation to your Creator.

Customs and Manners of the Chinese



R. W. GILBERT WALSH, M. A., editorial secretary of the Society for the Diffusion of Christian and General Knowledge Among the Chinese, in his book "Ways That Are Dark," gives the following interesting views of Chinese customs and conventions:—

"When meeting an elder, a respectful salutation should be made by holding the hands together as high as the breast and making a slight bow, at the same time moving the hands once or twice forth and back.

"If spectacles are worn, they should be removed and held in the hand until parting, the idea being that spectacles are equivalent to a bandage over the eyes, and that the wearer wishes to shut out the image of the person from his view; thus, as it were, overlooking the fact of his presence.

"The rule applies not only to juniors in the presence of seniors or superiors, but also to persons of equal standing; and when a junior removes his glasses when addressing a senior, the senior should return the compliment; but elders need not remove their glasses when meeting juniors who do not wear them, or who do not remove them.

"In walking together the younger person should keep in the rear a pace or so, and should offer to assist the elder in places of difficulty.

"It is not correct to say 'Thank you' to a servant in China, even to the servant of another person, for this would be to treat the servant with the same ceremony as that which is accorded to the master; and if you say 'Thank you' to the servant, what form shall your expression of thanks to the master take? The proper thing to say is, 'You are working very hard.' or, 'You must be tired.'

"Some Chinese, and those not a few, take for granted that the foreigner who adopts their costume does so from a conviction of the superiority, not only of Chinese habiliments, but also of Chinese civilization, and that he is thus 'going up a peg' in his own estimation when he disports himself in the costume of the 'accomplished land'; while the Chinese opinion of him is that 'he is no better than a washed monkey with a cap on,' that is, he may disguise himself and remove some of the 'bristles' by shaving, but he is a monkey none the less.

"In asking the way to a place, it is unsafe and inexpedient to inquire of wayfarers; the proper plan is to inquire of the proprietor of the first shop one comes to, or of the workers in the fields, if the place happens to be in the country; and, in asking, one should be very respectful, for the shopkeeper does not depend upon giving geographical directions as a means of livelihood; and there is a strong temptation to send 'on a false scent' the man who rudely and cavalierly demands direction of one who is under no obligation to direct him. The proper form of inquiry is something like this: 'Venerable sir, how do you go to such a place?' making at the same time a respectful gesture with the hands raised together to the breast. If riding at the time, the inquirer should dismount, or at least make some apology for not doing so, before seeking direction.

"To the Chinese the carrying of a staff [cane] by people in the prime of life, is an anomaly which they can only explain by the theory that the staff indicates official position, or, more popularly, that it is intended

for beating dogs, and hence it is often called 'dog-beating staff.' With regard to the first, it might not be considered as altogether uncomplimentary; but the second, and by far the most common explanation, classes foreigners with the other dog beaters,—that is, the beggars, who also carry staves or other implements to protect themselves,—and the dogs themselves also appear to agree in this classification, as they generally present their salutations to beggars and foreigners, making no invidious distinctions between the classes.

"Now, dogs may not be beaten with impunity in China, and if the foreigner applies his staff to the hide of a domestic dog, he will not rise in the estimation of the owner; and for this reason he will be well advised if he leaves his staff at home, and he will probably find that the dogs will trouble him less if he is thus unprotected than they would if he went armed. This, however, is a 'counsel of perfection.' There may be cases when it is absolutely necessary to protect one's self; but yet one may remember that ladies are equally exposed as men, and are generally unarmed.

"When foreign ladies meet foreign gentlemen in the street of a native city, they should refrain from hand-shaking or other form of cordial salutation, and be content with the interchange of bows, the gentleman lifting his hat as usual. Ladies should not kiss one another when meeting out-of-doors, but should 'moderate their transports' until they have an opportunity in the seclusion of their own houses.

"It is hardly necessary to remark that men should abstain from kissing females, of whatever age, when meeting in the presence of Chinese, for such a practise would be most certainly misconstrued. Kissing is not unknown in China, though perhaps not so popular as smelling; but not even a father or a mother will venture to salute a daughter when once she has found a husband; and brothers and sisters are not supposed to embrace, or even to sit at the same table, once they have passed the age of ten years. It should be remembered how very rigid is the theory of the segregation of the sexes in China; and foreigners should avoid, as far as possible, the appearance of contravening these laws, for in Chinese eyes they constitute the border line between decency and indecency, however unnecessary, and indeed ignoble, they may appear to us.

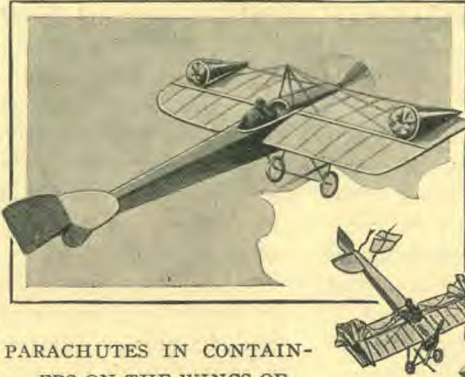
"Another point of very great importance is the treatment of written or printed characters. The Chinese, even of the lowest classes, are utterly scandalized by the foreigner's abuse of written symbols; by his wrapping up of parcels in newspapers; his scrubbing of stains with written or printed paper; and even worse degradation of the precious gift of the writer's art, whether in Chinese or foreign characters; and it may be said that few peccadillos are more frequently discussed by the Chinese than this, and few occasion them greater astonishment, and confirm their persuasion of the barbarism of their foreign visitors. An instance of such thoughtlessness on the part of a missionary may serve to undo all the good which he has accomplished during months of earnest effort."

A SPECIAL temperance program was conducted at the College View church, Sabbath, April 5. The church plans to use five thousand copies of the Temperance INSTRUCTOR this year.



Parachutes for Aeroplane as Well as Airman

THE energies of practically all the inventors of parachutes for airmen have been directed toward the development of a device for the airman alone, the aeroplane itself being allowed to drop to earth unhindered. Parachutes for the whole aeroplane have just been designed by a French inventor. Two folded parachutes, contained in cone-shaped receptacles, are attached to the wings as near the ends as possible. By means of a simple mechanism, operated by the movement of a small hand-lever, these parachutes are pushed out of the containers, after which they are claimed to open freely, no matter in what manner the aeroplane may be falling. All the airman has to do is to hang on to the aeroplane. The accompanying picture shows the parachutes in operation.—*Popular Mechanics*.



PARACHUTES IN CONTAINERS ON THE WINGS OF THE AEROPLANE

find its way to the surface. It is more likely to destroy the parts where it started, and then to burrow its way in all directions. In the tendinous variety, it sometimes travels through the fibrous sheath of the tendon, and appears as a palmar abscess. It may also follow the muscles of the arm, and cripple the limb permanently, or even make amputation necessary.

The periosteum is very tight and tough, and when pus has formed there and can not break through the membrane, it will attack and destroy the bone itself.

An effort is sometimes made to head off a felon by cold applications, or by injecting an antiseptic into the tissues, but the effort is seldom successful, and as a general thing a deep and thorough cut by the surgeon's knife is necessary. Immediate relief follows, although the cut itself is so painful that the surgeon often gives the patient a whiff of nitrous oxid gas before he makes the incision.—*Youth's Companion*.

Teaching the Swallows to Hunt

MR. A. A. ALLEN in *Country Life in America* describes the interesting ob-



Popular Mechanics

AN ACTUAL DEMONSTRATION OF THE OPERATION OF THE PARACHUTES

Felons

A FELON, or whitlow, is a painful, suppurating inflammation of one of the fingers. It often starts in the last joint, though not always; but wherever it begins, it may extend to the whole hand. A felon is serious for several reasons. It causes continual and severe pain; it generally has to be treated by a surgeon; and if neglected or improperly treated, it may lead to a deformed and disabled hand or arm.

A similar inflammation sometimes appears in the palm of the hand, and is called a palmar abscess. More rarely the abscess begins among the tissues at the back of the hand.

A felon may affect the parts immediately beneath the skin only; in that case, the sufferer escapes easily. Even then the suffering is great, and palmar abscess

servations he made one season of a family of tree-swallows. After telling of their early arrival from the south, their nest building, hatching of the eggs, and feeding of the young, he describes the effort of the mother bird to teach the young to get their food on the wing.

"It was over a week later that I next saw the young," says Mr. Allen. "The old home had been visited and found empty. The immediate neighborhood had been scoured, and we had all but given up hope of seeing the swallows again, when one flew up from a branch before us. Perhaps it was a young one from one of the other nests; we could not tell. As it rose on rather hesitating wing, it was joined by one of its parents, flying about it and seeming to encourage it. For several hundred feet it flew until, gradually losing strength, it dropped into the cattails. Exhausted by its long flight, it gave the desired chance. We placed it upon a stub where it could be watched and photographed. For a while the anxious parent hovered about, but when no further harm seemed to be coming to its child, it disappeared. Far over the marsh it went, where neither we nor its young could follow. Then it came back. The young bird espied it before we did, and awaited with fluttering wings and widely opened mouth. We expected that the parent bird would alight on the stub beside its young before delivering the insect, as ordinary birds do, but not so. This young



Popular Mechanics

THE SZCZEPKOWSKI WATERING MACHINE INVENTED FOR IRRIGATION IN GERMANY

in a workman whose palms have grown thick and horny with toil may cause frightful pain until it is relieved by an operation. But when the pus forms deep down, among the fibers that surround the tendons, or under the periosteum,—the fibrous covering of the bone,—a felon is a much more serious matter.

In these cases, even if it were possible to endure the pain, it would be a mistake to wait for the pus to

bird must learn to seize its food from the air at full speed, and the training had now begun. It was not to gain the accuracy of the strike by instinct alone, but by long practise. Before we knew what was happening, the old bird had swooped past the stub on which the young was perched, had delivered its food, and was off again. The exchange from bill to mouth had taken place instantaneously. Many times was this repeated until the young bird's appetite was appeased, and then the old bird disappeared to some other part of the marsh to care for another of its errant children. We had witnessed the first lesson in the teaching of the young tree-swallow to catch its food.

"And now for the next step in the instruction. More than another week had passed before I was again in the marsh. I was waiting for a wood-thrush to return to her nest in the maples along its border when I noticed three swallows on the wire over my head. Two of them were evidently adult birds and one a young bird. As I was observing them and wondering if they were the same birds that had been watched and photographed, they departed. The young one was still a trifle weak in its wings, but was capable of sustained flight. Turning, they came past me again, and as they did so, one of the old birds swooped down upon a caddis-fly that was fluttering beneath them. Then gliding gracefully upward once more, it delivered the insect to its young, on the wing. Here then was lesson number two. Before the wings were strong, it had learned to take food from its parents as they darted past. Now it had learned to repeat the operation in full flight. All that remained was for it to see its own food and learn to take it from the air instead of from its parent's bill. This was a minor step, and before they began to assemble in flocks during July, one could scarcely tell young from adult as they darted hither and thither in their swift pursuit of insects."

Flowers and Plants Used in Making Perfumery

(Concluded from last week)

THE citron perfumes of commerce are supplied from Italy and France. The island of Trinidad produces limes that yield a very fine oil of perfume.

Experiments are being made in California and the Gulf States with the citrus-fruits in regard to perfumery farming. One experimenter has successfully extracted the oil of lemon verbena, which



FEEDING THE YOUNG, ON THE WING

makes a choice and expensive citrine-like perfume. But because of its high price, the manufacturers of perfumes use imitations in its stead. Many so-called perfumes do not contain a drop of the real perfume oil indicated by their names. Cheaper imitations are used instead. This is also true of extracts.

Lavender, Thyme, and Rosemary

These are perfume-yielding plants of the mint family. True lavender is a perennial herb with slender, straight stems, having gray-colored leaves and spikes of small flowers of lavender color. The corolla and calyx of the flowers are covered with hairs radiated from common centers in the form of a star. Among these stellate hairs are embedded glands which yield the fragrant oil of lavender. This plant grows native in the region around the Mediterranean Sea, and in a wild state prefers arid mountainsides, where a richer and stronger perfume is yielded than elsewhere. For some time lavender has been grown in more northern latitudes, where it does well. In England it flourishes under cultivation and yields a superior oil.

Spike lavender yields a less valuable oil, which is used in soap-making, by artists, and in medicines. Garden thyme, wild thyme, and lemon-scented



National Geographic Magazine

TALIPOT PALM-TREE, ON WHOSE DRIED LEAVES THE BUDDHIST SCRIPTURES WERE WRITTEN

The tree bears this blossom after the age of forty years—a splendid spike of white flowers forty feet high. When the flowers fade the tree dies.

thyme yield oils that are used exclusively for scenting soaps. France furnishes the bulk of the world's supply of *thyme*, about ninety thousand pounds a year being distilled in her southern perfume district. The wild variety of *thyme* is hardy and grows throughout Europe to a considerable extent.

Attar of rosemary is used chiefly with other attars for scenting soaps. It is produced to some extent in England. Orris-root, or iris-root, furnishes a perfume used as a substitute for violet perfume. It is produced mainly in Florence and other parts of Italy. Three species of iris are used in producing this perfume. The thick, fleshy rootstocks are dried, and slowly develop the perfume, which reaches its maximum at the end of two years. It is extracted by distillation in the form of a butter. The root is also ground for use in sachets.

Violet, Cassie or Acacia, Tuberose, and Jasmine

perfumes belong to the finer class and are very expensive. The sweet, delicate odors of their flowers are extracted by the processes known as maceration and enfleurage, already briefly described.

The *acacia farnesiana* is a small tree reaching a height of twenty or thirty feet, and having pinnately compound leaves of a fine, delicate beauty. Small, round, yellow flower heads, borne at the axils of the leaves, yield the rich perfume. It is grown commercially in France. The climate and soils of Florida, Texas, and Southern California are adapted to its growth.

Jasmine perfumery is regarded as about the only one which can not be imitated by a mixture of other odors. It is greatly esteemed and of high price. France is the chief center of its production. Tuberose perfume is another staple product of the flower farms of Grasse, France, and its vicinity.

Some of our own native perfumery plants are the sassafras, wintergreen or sweet birth, red cedar, wild ginger, and the sweet-bay magnolia. The sweet birth yields an oil identical with that of wintergreen, and is much more easily obtained. It is claimed that the wood of the red cedar yields a finer perfumery oil than the cedar of Lebanon.

Sweet-bay magnolia of our Eastern and Southern swamps exhales a powerful aromatic fragrance that perfumes the atmosphere for miles around, and might well be utilized for the finer perfumes as well as for scenting soaps.

MARY CRAWFORD.

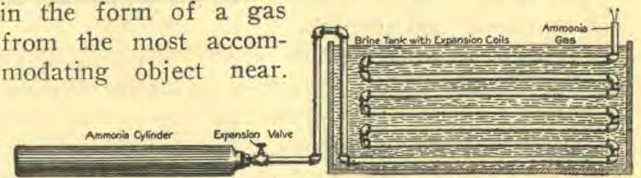
Manufacturing Ice

NOTWITHSTANDING the immense fields of ice in the northern regions, the ponderous glacial rivers of mountainous countries, and the thousands of frozen ponds, lakes, and streams of temperate latitudes, the whole civilized world continually calls for more ice. Fortunately, this demand is being generously met by the production of artificial ice. Every year for the last quarter of a century this supply of ice has increased through the erection of new ice plants, so that to-day almost every city, town, and village has its ice factory.

The principle involved in the manufacture of ice is very simple. Heat is what keeps water in its liquid condition. Remove the heat, and ice results. A gas can be converted into a liquid by removing the heat from it, and then the liquid thus produced can be turned

back into a gas if it can get the necessary heat. A simple experiment, easily performed by any boy at home, illustrates these facts: Place a thin watch crystal, covered with a film of water on its lower side, on a block of moist wood. Pour a little ether (ether must not be used where there is a lamp or fire) into the crystal, and direct a blast of air against the ether. The ether rapidly evaporates. Heat is necessary to allow it to evaporate, so the ether has to steal the necessary heat from the watch crystal, and this in turn takes it from the water touching it. The water, therefore, losing the heat that was necessary to keep it in a liquid form, is reduced to ice.

It is very difficult to keep some liquids in a gaseous or vaporous form. If the pressure on the liquid is reduced only a little, the liquid will evaporate or take a gaseous form, grabbing the heat necessary to keep it in the form of a gas from the most accommodating object near.



ELEMENTAL ICE APPARATUS

For example, ammonia gas, the pungent gas that one gets in smelling a bottle of ammonia water, can be liquefied by cold and pressure. That is, the pure gas can be reduced to a liquid by removing the latent heat units from it. Now it is a difficult matter to keep ammonia in the liquid form. It will change back into the gas just as soon as the pressure is removed if there is something near from which it can steal the necessary amount of heat to maintain the gaseous form. Herein lies the whole principle of the production of ice by artificial means; namely, given a liquid that easily changes into the gaseous form by decrease of pressure; and another liquid at hand whose latent heat units will supply the required heat for the change in the first, and the latter will be reduced to ice.

Ammonia is a gas most frequently used in the manufacture of ice. It is made from ordinary soft coal, so is not expensive. It is easily compressed into the liquid form, free from water. This liquid ammonia is forced into steel cylinders, each of which contains one hundred pounds of pure ammonia. This is quite different from the ammonia water which we buy from the grocer with which to do our cleaning. That consists simply of a little gas dissolved in water, while the steel cylinders hold pure liquid ammonia, made by compressing the pure gas into the liquid. Air itself can be made into a liquid by subjecting it to strong pressure, under a very low temperature.

Some years ago *Popular Mechanics* gave the following simple but explicit description of an ice-producing plant:—

"The cylinders containing the ammonia are connected to long coils of iron pipe, and the gas is allowed to escape into them, through a valve. Immediately, like a schoolboy let out for a recess from a pent-up schoolroom, the liquid ammonia scampers through the pipes, rejoicing in its newly found but temporary liberty. The liquid speedily changes to the gaseous form; but, as has been demonstrated in the experiment described in the beginning of this article, such change of state demands heat, and the heat is immediately taken from the iron coils, which are immersed in a heavy brine, in which are placed large oblong iron boxes filled with water.

(Concluded on page twelve)



MAKING ICE



A Text and a Story

S. W. VAN TRUMP



"Therefore seeing we have this ministry, even as we obtained mercy, we faint not." 2 Cor. 4:1.

IN the Australian bush, miles beyond the haunts of other men, an independent Briton had made a clearing sufficient for a home for himself and his wife and three children. A humble cabin, a spring of water, and a small but productive ranch made theirs a happy and contented life. However primitive their style of living and few their needs, they were still obliged to depend upon some of the products of civilization, such as composed the stock of the nearest trading post, one hundred or more miles away.

The time had come for the annual trip to the trader's. The wool and hides and other articles of barter were loaded on the waiting packhorses. The father was to be gone about a fortnight, and the children were promised toys and sweets from the trader's when he should return. Cloth and shoes and other needed articles were on the list of things to be procured, and the anticipation of opening the bundles when the father should return helped compensate them for the dread of the loneliness and danger they would feel in his absence.

The father's cheery "Good-by" had been given, and the mother had taken up the usual household duties. The oldest boy, the younger brother, and the baby sister were playing "keeping store," bargaining for great quantities of candies and toys of unheard-of design. The morning passed happily, and the time of the midday meal found a hungry trio of children, made unusually voracious because their morning play had chiefly consisted of buying and selling things to eat that were made of nothing more satisfying than the airy fantasies of childhood's dreams.

The older boy was sent to the spring for water, and the mother went to fetch wood for the fire. As she stooped to pick up the pieces of fuel, a streak of black shot toward her, striking her face like a thrown boomerang, and seeming to sting like the bite of an angry cat. Terrified, the woman fell prostrate, and looking toward the place where she had thrown her chip-basket, she saw an object that seemed to paralyze her with fear. A great serpent of the most venomous kind was coiling for a second attack, which she avoided by summoning all her strength and springing aside as it leaped. No one can imagine the feelings of the mother as she hastened to the house. Death was at the most only a few hours off, for no one had ever been known to survive the bite of this species of reptile. But there came to her mind the question, "What will become of the children before their father returns?" This acted like an electric shock to restore the senses of the mind made frantic by a terrible ordeal. Like a flash, her plans were formed. She would bake all the meal into cakes that her children need not starve. Though die she must, they should be spared to welcome their father home. If only the effects of the deadly venom could be stayed until the tiny camp-stove had done its work! Seizing a rifle, she rushed to the wood-pile and quickly despatched the lurking snake. Grasping the fallen basket, she filled it with chips and hastened to the house to kindle the fire. Soon the first small batch was being baked. Then other articles of food were prepared, and the children given their dinner as usual. Meanwhile the mother built a fire in the yard and improvised an oven to hasten the baking process. Every minute the feeling

of depression and stupor increased, yet the effort to fight it off never relaxed. The ax was wielded to split the wood finer for quicker fires, and not once did she yield to the inclination to lie down. One hour passed, two, three, and still the pain and languor, symptoms of the approaching end, increased. Four hours had gone by since the awful experience of the noonday. At last all the meal was baked into cakes, which were placed where the children could reach them. Then the older boy, a child of eight, was called, and told that he must take care of brother and baby sister till papa returned, that they should not disturb mama, as she would sleep and rest until their father came back. Then she tottered to her room, locked the door, and fell fainting upon the bed.

We now come to the application of the text. This mother's love for her children kept her from fainting until her ministry for them had been accomplished. Though she felt that her death was certain, she instantly determined to spend the last few hours of life in saving the lives of her children. And what was her reward?

The following day there was a stir in the mother's room. The sun was again high up in the heaven. The woman had awakened, but did not know where she was, why the baby was crying at the door, nor why her head felt so dull, and her frame so stiff and sore. After an effort she sat up, and by degrees the previous day's experience came back to her mind. The little clock in the dining-room struck the hour of eleven, and the smaller boy set up a loud cry for his mama, with the baby's voice chiming in. The older boy was cautioning them to be quiet, and was getting the biscuits and potatoes in readiness for the regular luncheon. A key clicked in the bedroom door, and out stepped the mother to the joyful greetings of her children. Her strenuous exertions of the previous day had overcome the effects of the serpent's fangs, and her efforts to save her children had resulted in saving her own life. Seeing her ministry had brought its reward to her.

Truly it is a divine law that he who seeks to save others is most surely working out his own salvation. And no one can ever faint in the conflict who, like Paul, sees his ministry and sets about doing the work God expects him to do.

Jane at College

JANE stood on the platform in a trim new traveling suit, with a new hat to match, a new suit case in her hand, and, in fact, she said that she was all new even to a few new freckles. You see Jane was just eighteen and on her way to Mount Willis College. Previous to this she had cared very little about her dress, hair, freckles, or anything except being a tomboy, and this took no special thought. Her sister told her that the only feminine trait she had was the ability to make candy, and Jane herself admitted that she was fearfully afraid this lack would be the death of her, especially now that she was going away to school. As the time for her to go away drew near, Jane became very particular about her behavior. She was trying to be ladylike, she said, and get a few corners off before she made her appearance at college.

As the train came puffing into the station, Jane promised her sister that she would abide by all the rules

of the school, study hard, and write home every week. When the conductor called out, "All aboard," she kissed her sister good-by, and followed her father out through the gates, clinging to his arm and wiping the tears away with his coat sleeve; and when her father had gone and the train pulled out, she forgot all about her new attire or how she looked, and cried as if she were going to prison instead of to Mount Willis College.

The first letter from Jane showed that she was pleased with her surroundings and so far had broken no rules. She wrote to her sister: "My dear, your conduct while here was so perfect that when the teachers learn that I am your sister, they look at me in a kindly, satisfied way which makes me feel very uncertain of myself. For a while I can get along on your good reputation, or at least until I get used to the atmosphere." Her sister flushed with pleasure when she read this, and said, "I hope Jane doesn't get used to the atmosphere too soon."

Everything went well until after the Christmas holidays, when one night Jane could not settle down to her studies, and after a whispered consultation, a dozen of the girls, led by Jane, stole up to the attic, taking with them the regular paraphernalia for fudge making. As the delicious fumes arose from the chafing-dish, they filled the attic and descended to the hall below, where the sensitive nostrils of a patrolling matron caught the betraying odor. She reported the girls to the principal, but because of Jane's honesty in the matter and a promise of good behavior in the future from all the girls, they were let off with orders not to leave the campus for two weeks.

One hot afternoon toward the middle of Jane's course she was in the library doing some research work on which she was preparing an article for the principal. It was to be in very soon, and in fact, was subject to call, for at any time the principal might need it. Jane was busily working when one of her classmates came into the library and began to tell her about a professor in the city who was to lecture that very afternoon on the subject which she was looking up, and suggested that possibly he could give her some information that she was unable to find.

"O, I wish I could go!" said Jane.

"Well, come on, let's go, then; we have just half an hour before time to start."

"It would help me a lot with my article," argued Jane; "still I don't know whether I ought to go or not."

"You'd better come on, half of the time is gone already."

Jane thought a minute, and then jumped up and said, "All right. I'll get ready and meet you in the front hall."

They had not been gone more than an hour when the principal came into the library looking for Jane. He wanted to consult with her about the article, and request that she hand it in that day, as he would need it the next morning. But Jane was nowhere to be found. The principal was surprised, but finally decided that supper-time would do to see her. Supper-time came, but no Jane.

She returned in the early evening, and went immediately to her room. Her roommate was waiting, and told her that the principal had been looking for her and seemed somewhat worried because she could not be found about the place. Jane felt a little nervous as she realized what she had done,—that she had neg-

lected her work for pleasure, and perhaps caused the principal serious inconvenience by not having her article completed. Nevertheless she said nothing, and went to bed at the usual time. In the middle of the night, when she was certain every one was sound asleep, she got up and took her key and went down to the library. After making sure that every shade was drawn and no light could escape, she turned the lights on, and locked herself in, determined to finish her article that night, in order that the principal might have it the next morning. She worked until very early morning before she completed her work, and then stole back to her room and crept into bed without waking her roommate. She had just fallen asleep when the rising-bell rang, but she got up as if she had had a good night's rest, and went down to breakfast as usual.

Immediately after chapel, the principal called her into his office and asked her if the article was in shape to hand in, feeling confident that it was not. "I have it finished," said Jane.

"Not entirely?" asked the principal.

"Yes," replied Jane, "and I think I have the references also which we were unable to find."

"Is that possible?" said the principal, "where did you get them?"

"Professor Hienz gave them in his lecture yesterday afternoon, which I attended," answered Jane.

The principal was so pleased to get the references he so much desired, and also the completed article, that he was not capable of scolding Jane very severely, as he had intended. He merely advised that permission would always be granted to attend a lecture of that nature, but to go off as she had done was strictly against the rules of the school and called for punishment; but since much good had been accomplished by attending the lecture, she would be let off this time.

This experience was the turning-point in Jane's life, for it led her to make the resolution that during the remainder of her course she would be perfectly honorable in every detail. The time slipped rapidly by, and the testing time of this decision arrived. It was the night before graduation, and the juniors had planned a midnight spree for the graduates. At this time the members of the graduating class were to rehearse their speeches for the coming night and have a farewell feast. Besides being a general favorite, Jane was the valedictorian and necessarily would have a prominent place on the program. She knew the whole affair was strictly against the rules, and her fun-loving nature rejoiced in such occasions, but she remembered her resolution to be perfectly loyal, and decided that now she could not sacrifice her sense of honor, so determined not to go. When her friends heard that she was not going, they tried to persuade her, using all manner of arguments. They said school would be over the next day, and if it were found out, what could be done about it? and the regulations were lax at the end of school and the graduates always had more liberty. Finding that they could not persuade her to go, they went off and left her, the only graduate who did not go. The young folks were not found out, and all felt that now the only thing needed to complete their happiness was receiving their diplomas.

The large assembly-hall was crowded with the friends and relatives who had come to attend the long-looked-for event when the alma mater would send forth the students fortified with knowledge to work out their success in life. On the platform, amid a profusion

of beautiful flowers, sat the expectant graduates. After the president had given all a cordial welcome and commended the students for their faithfulness and wished them success in their life-work, Jane came forward to give her valedictory address. Her subject was "Loyal and True." When she had finished, her classmates looked at one another and read guilt in one another's eyes. They felt sad that they had not remained loyal and true to the end as Jane had done, for now they understood why she did not go with them the night before. After the exercises were over, and each had received his diploma, the friends came forward to offer congratulations. Jane's classmates gathered about her and told her how proud they were of her because she was the only one who had upheld the standard. The greatest joy that Jane felt that night was not that she had finished her course and received her diploma, but her heart was glad because she had been true to herself and her sense of honor, and she determined then to keep her resolution throughout life that she would ever be honorable and true.

GLADYS M. SEELY.

A Lesson in English

LITTLE owlet in the glen,
I'm ashamed of you;
You are ungrammatical
In speaking as you do.
You should say, "To whom? to whom?"
Not, "To who? to who?"

Your small friend, Miss Katydid,
May be green, 'tis true,
But you never hear her say,
"Katy do! She do!"

—Selected.

Sympathy Wanted

SHE is now a dignified grown-up worker in the church, but this happened when she was a wee girlie. By some accident her favorite doll was broken, and her tears flowed freely. Her mother, busy about household duties, trying to comfort her, said: "Never mind! it was an old thing anyway, almost worn out. I'll get you another." But the tears flowed faster and faster. The promise was made of a bigger and prettier doll than she had ever possessed; but, instead of being pacified, the wails became louder than before. At last, with some impatience, she was asked sharply: "Why don't you stop crying? Haven't I told you that I'd get you a prettier doll to take its place?" "I don't want annuver doll!" sobbed the child. "Well, why are you crying then? What do you want?" And the answer came with a catch in the breath, "I want symp'fy."

Grown-up worldly wisdom is trying to tell our hearts that we want costlier possessions and finer amusements and more beautiful adornings, but the real cry of our actual need is for sympathy. "The heart at leisure from itself to soothe and sympathize" has something more to offer than the purse with its golden treasure can buy. And—reverently we say it—we have been wondering if that is not what Christ wants from us in our attempt to serve him. Not primarily larger churches and finer equipment, but first of all a heart that "suffers with" him in his redemption of the world, and then everything else will find its right expression and his work will move forward in our hands with all right adjustment.—*Temple Review*.

Concerning Cosmetics

I HAVE just read an advertisement put forth by a famous, conservative department store, one of the best in the country. It was all about cosmetics, and included a long list of them, at high prices. There were rouges, and face-powders, and secrets of beauty, and liquid lilies, and lip sticks, and eyebrow pencils, and a lot of other devices to improve on nature.

What impressed me in the advertisement was its crafty argument. In former days, it said, the use of any aid to beauty was condemned; but to-day, it asserted, women are expected to have regard to their personal appearance, and the one who neglects these methods of making herself as presentable as possible is the one who is condemned, rather than the one who uses them.

The writer of that advertisement is either ignorant of history or he lied, for it is well known that the fashionable ladies of olden times painted and powdered till not a whit of their original faces appeared. A healthy revulsion from the custom set in and has lasted till recent years, women in general leaving the barbarous practise to the women of heathendom, where it is abundantly in vogue.

Silly vanity, however, has led to a very pandemonium of cosmetics. Painted faces are almost in the majority on the city streets. They are seen, alas! even on young girls, and by the thousand. They glare upon the observer in the most startling contrast with the reality. They deceive nobody. They are as far from real beauty as a barber's pole is from a rose. Men pass them with cynical smiles. They cause hideous sores and other disfigurements, and render real beauty forever impossible.

When will women learn that the only "aids" to beauty are absolute cleanliness, proper food, proper exercise, abundant sleep, fresh air, and an unselfish character?—*Caleb Cobweb, in the Christian Endeavor World*.

Be Pure

THE day is fair and the birds are glad
And the merry breezes blow,
And the rippling rills and the blossomed hills
Are with sparkle and gleam aglow;
The fragrance floats with the sweet bird-notes,
And the lambs are skipping free
'Neath crystal skies; and my happy eyes
See earth in purity.

I see a man; 'tis a fallen man,
For the smoke curls round his head,
And his shingle hangs on his heavy nose,
And his eyes from whisky are red;
And a little child with her golden curls,
Who trusts her father's care,
With ne'er a thought that his great sin
To her will be a snare.

I see the child; I watch her way
As the heavy years go by.
She stands at last by a drunkard's bed;
She sees her father die!
Her father?—Yes, for the passion wrought
In the depths of his fallen frame
Has bound and fettered fast her life
To rum, and crime, and shame!

O fathers, halt! do you dare to print
On the yet unwritten page
The story vile of a drunkard's guile,
That will blast till latest age?
Look down in childhood's eyes of trust;
It is basest treachery
To stamp your crime, for all coming time,
On the lives that are to be!

B. F. M. SOURS.

Mechanicsburg, Pennsylvania.

"REDEMPTION" is sweet; "redeemed" is sweeter.

Manufacturing Ice

(Concluded from page eight)

"The expanding gas robs the coils of some of their heat; the coils in turn take heat from the brine; the brine takes it from the iron boxes; the iron boxes in turn absorb it from the water, and the water freezes.

"This gas costs about two hundred dollars a ton of ice-making capacity. Accordingly the ammonia, after it has done its work, and is quite hot, is not allowed to escape, but by means of condenser pipes, over which large quantities of cold water are constantly flowing, is cooled, and then by means of powerful compressor pumps, caused to reassume the liquid form, and may be used over and over again, none of it being lost in the process.

"The floor of an ice plant looks like an enormous checker-board. The squares are the wood covers of the iron tanks immersed in brine. It takes about forty-eight hours to freeze the water thoroughly, and thus make a block of ice of the size and dimensions so familiar to the passers-by on the streets of our cities. The reason it takes such a long time to freeze is due to the fact that the ice forms first along the six sides of the container. This makes an insulating coat that hinders the absorption of the heat units from the interior of the ice-box so formed.

"An ammonia compression plant consists of practically four parts,—the expansion coils; the compressor into which the gas is drawn and compressed; the condenser, which lowers the temperature of the compressed gas sufficiently to enable it to return to the liquid form; and the receiver, where the liquid ammonia is stored until it is needed for another ice-making tour.

"It requires forty-five cylinders of ammonia of one hundred pounds each to make one hundred tons of ice. In many ice factories the water ordinarily is not pure enough, and a distilling plant is a necessary adjunct. As regards the quantity of pipe used in the best factories for condensation purposes, it requires about three hundred twenty feet of one-and-one-half-inch pipe to the ton of the ice-making capacity. The brine is generally made from common salt, but calcium chlorid forms a better brine that will not freeze, as occasionally happens in the case of salt brine."



M. E. KERN
MEADE MACGUIRE
MATILDA ERICKSON

Secretary
Field Secretary
Corresponding Secretary

Society Study for Sabbath, June 7

1. OPENING Exercises (fifteen minutes).
2. Bible Study (fifteen minutes).
3. Mission Study (fifteen minutes).
4. Social Meeting (fifteen minutes).

Suggestions for the Program

1. Review Morning Watch texts; prayer; minutes; special music; report of work; review mission studies for May.
2. Success in the Christian Life, No. 8. We must render implicit obedience. Matt. 7: 21. All our profession is valueless without obedience. 1 Sam. 15: 21, 22; Deut. 8: 19, 20. He promises the Holy Spirit to those who obey. Acts 5: 32; Rom. 6: 16-18.
3. Pioneer Missionaries in China. Have a five-minute paper on each of the following men: Robert Morrison, J. Hudson Taylor, and Griffith John. If all are familiar with these,

take some not so well known,—William Milne, W. H. Medhurst, Karl Gutzlaff, David Abell, Elijah Bridgman, Samuel Williams, Peter Parker, or others who helped lay the foundation of missions in China. "Into All the World," by Amos R. Wells, is good. See also the short biographies in this INSTRUCTOR.

4. For suggested topic see Matt. 21: 28-31. The one who says, "I will," and does not go, does not deceive the Lord. To which class do I belong?

Five Pioneer Missionaries in China

ROBERT MORRISON, the first Protestant missionary to China, was born in Morpeth, England, Jan. 5, 1782. He was not a brilliant boy at school, but when the Bible came into his hands he read it, and at the age of twelve was able to repeat verbatim the one hundred nineteenth psalm. Morrison followed the trade of his father for a while, making lasts and boot-trees, but in 1802 he entered the work of the ministry, and was ordained in 1807.

In 1804 he asked the London Missionary Society for an appointment to China, which was granted. Before going he studied Latin, astronomy, the Chinese language, and some medicine. Just before leaving New York harbor, the ship owner asked him, "And so, Mr. Morrison, you really expect that you will make an impression on the idolatry of the great Chinese Empire?" Morrison answered, "No, sir, I expect God will."

For a time he adopted the Chinese customs,—ate with chop-sticks and wore the pig-tail, loose dress, and heavy shoes. Afterward he found it unwise, and again put on the European dress.

At the age of twenty-seven he married Miss Mary Morton. In 1823 Morrison completed his large Chinese dictionary of four thousand five hundred ninety-five pages, the publication of which cost the East India Company sixty thousand dollars. Late in July, 1832, he was exposed to a storm on an open boat. He never recovered from the exposure, but preached one more Chinese sermon before he died.

IRMA B. GERHART.

WILLIAM MILNE was born in Aberdeenshire, Scotland, in 1785. He was wild, and his neighbors said that he was "a very deevil for swearing." But at the age of sixteen he was converted. At twenty he declared his intention of becoming a foreign missionary; but for five years he continued to support his mother and sisters. He then applied to the mission board as a candidate for a foreign field.

Because of his meager education, the board decided that he would not do as an evangelist, but that he might go as a mechanic. His reply was, "Anything, anything, if only engaged in the work." On July 4, 1813, he and his wife of only a few days sailed for China, where they were met by Dr. Morrison. Dr. Milne lived only ten years after entering China, but in that time he and Dr. Morrison translated and gave the entire Bible to the Chinese people. Leang-Afa was his first convert, and the first ordained Chinese evangelist.

A. F. ARKEBAUER.

KARL GUTZLAFF was born July 8, 1803, at Pyritz, in Pomerania. When he was a boy he often said he wanted to be a missionary; but he belonged to a poor German family, and his parents did not have enough money to send him to school, so he had to work as an apprentice in a saddle shop. He was about eighteen years of age when he addressed a sonnet to the king of Prussia. In this way the king found out Gutzlaff's desire, and so he helped him to get an education. Gutzlaff took the medical course. After he finished his

studies, he went to England, where he met Dr. Morris, a Chinese missionary. At this time a great desire to give China the gospel was born in his heart. Desirous of learning the Chinese language, he soon sailed for Batavia, where he devoted himself to this study and made great progress. Until this time he had been working under a Netherland missionary society, but in 1828 he separated from it and went to China, paying his own expenses. One year after, he married a rich English woman, who helped him to prepare a Cochinese-Chinese dictionary. Gutzlaff helped to translate the Bible into Chinese, and also wrote several books in this language. The authorities not allowing foreigners in the interior, he founded in 1844 an institute to train native missionaries. This work proved very successful, and a great number of missionaries were trained here, who afterward converted many of their countrymen to Christianity. Gutzlaff died at Hongkong, Aug. 9, 1851, after accomplishing a great and good work.

MARIE JIRON.

JAMES HUDSON TAYLOR, the founder of the China Inland Mission, was born in Yorkshire, England, May 31, 1832. He possessed the ability of his father as a preacher, and the gentle nature of his mother. At the age of fifteen he was converted through the reading of a tract. He soon after dedicated his life to the Saviour for whatever service he might appoint.

His father had been deeply interested in China, and had prayed that his son might some day go to that land as a missionary. Very early, through the reading of Medhurst's "China," his thoughts were turned to the land of Sinim. With this land in view, he joined himself, as an assistant, to a physician in London, to study medicine. But before completing his medical studies, his interest in China was quickened because of the Tai-ping rebellion, and he offered himself for that field, sailing Sept. 19, 1853. For six years he worked with older missionaries of other societies in different parts of China and had many rich experiences.

In 1858 Mr. Taylor was married to the daughter of the Rev. Samuel Dyer, who had been sent to China in 1827 by the London Missionary Society. A serious breakdown in 1900 resulted from his untiring labors, and he retired to Switzerland to recuperate. In 1905 he was determined to pay another visit to China. Upon reaching Chanpha, he suddenly but peacefully fell asleep. Thus ended the life career of one whose service was dedicated to the cause of Christ.

MINNIE B. GERHART.

GRIFFITH JOHN, the founder of the Hankow Mission in central China, was born at Swansea, Wales, Dec. 14, 1831. His parents were well-to-do Christians. When but a child he gave his heart to God, becoming a member of the church when only eight years old. He began to preach the gospel at the age of fourteen, and people flocked to hear him. For two years he received theological training from the Rev. E. Jacob, his minister. Mr. John's voice was sweet and his delivery smooth. He was humble, gentle, diligent, and persevering. In September, 1850, he entered Brecon College with the purpose of becoming a popular minister. He lost this ambition, and in its place received a burning desire to work for the heathen. He then spent a short time at the Missionary College at Bedford, England. Having offered himself to the London Missionary Society as a missionary, he was appointed to China. Before leaving for his field, he was married to the daughter of the Rev. Dr. Griffiths, missionary to Madagascar. He sailed for China May 1, 1855. In a little more than a

year he was able to preach quite well in Chinese. His first Chinese tracts were published in the year 1860. His translation of these tracts was so good that he was encouraged to make a translation of the Bible into the same language. He began this task in 1883. In 1886 he finished the New Testament, and soon after translated the most of the Old Testament. He also translated the New Testament and part of the Old Testament into Mandarin colloquial. He was in England on furlough from 1870 to 1873, and again in 1881-82, when he visited the United States. In 1906 he came to the United States to live, feeble health compelling him to withdraw from active service.

F. A. WYMAN.

1913 Gift-Books

To every young person holding three Missionary Volunteer Reading Course certificates the Young People's Missionary Volunteer Department will send, post-paid, one of the following books, selected by the young person himself or by his Missionary Volunteer conference secretary:—

1. "Steps to Christ," gilt, Mrs. E. G. White.
2. "Great Second Advent Movement," paper, J. N. Loughborough.
3. "William of Orange," George P. Upton.
4. "Missionary Idea," paper, Mrs. A. E. Ellis.
5. "Our Paradise Home," gilt, S. H. Lane.
6. "Passion for Men," cloth, E. F. Hallenbeck.
7. "Talks With My Students," F. Griggs.
8. "Victory in Christ," Robert Horton.
9. "The Second Mile," H. E. Fasdick.
10. "Elijah and the Secret of His power," F. B. Meyers.
11. "Abraham, or the Obedience of Faith," F. B. Meyers.
12. "The Kingship of Self-Control," Wm. J. Jordan.
13. "Out of the Fog," Chas. K. Ober.
14. "The Personal Life of David Livingstone," W. G. Blaikie.
15. "The King's Daughter," J. E. White.
16. "Tiger and Tom," J. E. White.
17. "The House That Rum Built," J. E. White.
18. "Christ Our Saviour," Mrs. E. G. White.
19. "Letters From the Holy Land," Henry A. Harper.
20. "Things Foretold," W. N. Glenn.

Numbers 15-20 are especially adapted for Juniors.

MISSIONARY VOLUNTEER DEPARTMENT.

How the Missionary Volunteer Institute Helped Me

At the Missionary Volunteer institute held at Berrien Springs college, January 24-26, we heard some splendid talks on organization and how best to conduct and carry on the different phases of the third angel's message in our young people's societies.

Being an isolated member, the things that were most helpful to me were the talks on daily consecration, personal work, and leadership in one's every-day life.

We learned that our religion must be able to support and comfort and lead us ever onward in our daily lives to Christlike perfection. We must be able to say with sincerity, "God shall have all there is of me." We must make Jesus our friend, and spend much time in reading his Word, talking with him, and meditating upon his counsel. Clinging to known sin is the only thing that will keep us from being all that he would have us be. We must never neglect secret prayer because we meet something there that is unpleasant, but rather, obey, and the victory will be won; for faith, obedience, and perseverance are its secrets.

Luther in his busiest days spent two or more hours in prayer. Jesus rose early in the morning and went out to pray. The quietness of the morning is the best time for prayer, when the troubles of yesterday are somewhat forgotten and the cares of to-day have not yet come.

"We can trust the Man who died for us." He will baffle no plan that would be for our good, but he will carry out every such plan if we will let him. When we have given our lives to him, we shall love the sinner and know the value of a human soul; for there can be no Christian life without personal effort for others.

Whatever one's calling in life, his first interest should be to win souls for Christ. We shall not all be able to speak to congregations, but we can all speak to individuals. Jesus said to Peter, "Follow me and I will make you fishers of men." This can not be done from a sense of duty; it must be done through love. Love never fails. It always perseveres, and it always wins.

If we rely wholly upon God's power, we can work with ease and tactfulness and avoid the strenuous, nervous tension we are so subject to. Strive to speak of the love of God as naturally as the world speaks of ordinary things.

Many are waiting, longing, for some one to speak to them personally on the love of Christ. When God speaks to us and impresses us to speak to a certain individual, he prepares that heart to receive what we have to give; so if we neglect to do our part, that individual is affected, too. How necessary it is that we act in the opportune time!

Some of us have had the opportunity of rescuing a drowning person, or by our care some one has got up from a severe illness. How good it makes us feel that we have been the means of saving a life! But how much greater will be the rejoicing when we learn that through our lives souls have entered the kingdom of heaven!

Having consecrated our lives to the Lord, and having become personal workers, we shall be leaders in our every-day life. Others will have a right to look to us for help and to expect high ideals from us. We shall be faithful and true to God in using the means he has given us, and we shall be careful that our influence may be for the best; for we owe all that we are to the religion of Jesus Christ, who died for us.

MILDRED PARRISH.

Missionary Volunteer Notes

A GEORGIA Missionary Volunteer writes as follows:—

"At present there seems to be quite a revival in our Missionary Volunteer Society work. We have formed four bands and divided the city into four sections, hoping to do more systematic work. Each band is to have a club of the *Signs* weekly to do Sunday work with, besides the tracts, books, and magazines that we shall use. Our praise service held at the close of the Sabbath is a real spiritual feast, as is also our workers' meeting on Thursday evenings. Six new members were taken into the church subject to baptism. We rejoice for the goodness of God and his prospering hand in our midst. We have taken up the study of the Standard of Attainment, and will make an effort to carry it through."

Three years ago the church where this society is located had only sixteen members; to-day its membership is two hundred seventeen, with at least twenty-five more who have begun to keep the Sabbath. Shall we not all thank God for the success of the work in this Southern city? and then pray for more power as soul-winners?

Mrs. Katie M. Pogue, Missionary Volunteer secretary of Minnesota, writes:—

"One of our societies is raising money, or has it almost raised, to place a copy of the *Temperance INSTRUCTOR* in every home in town just before the town election. Last year this town went dry, and it was thought that the efficient work done by the Missionary Volunteers with the *Temperance INSTRUCTOR* had much to do with the election."

The Missionary Volunteers in Alberta, Canada, are planning a big campaign with the *Temperance Annual* this year, and with the profits they expect to buy a conference young people's tent to use in the camp-meetings there.



X — Jacob's Return

(June 7)

LESSON SCRIPTURE: Gen. 32: 1-29; 33.

HELPS: "Patriarchs and Prophets," chapter 18.

MEMORY VERSE: "I will not let thee go, except thou bless me." Gen. 32: 26.

Questions

1. As Jacob with his family journeyed toward Canaan, who met him? What did Jacob say when he saw the angels? Gen. 32: 1, 2; note 1.

2. Whom did Jacob send before him? What message did they take? What reply did the messengers bring back? How did Jacob feel when he heard this? How did he try to protect his family and property? What prayer did he offer? What promise did he plead? Verses 3-12.

3. How did Jacob try to make peace with Esau? What did he tell his servants to say when they met his brother? Verses 13-20; note 2.

4. What did Jacob do that night? Who was with him? Verses 22-24; note 3.

5. What experience did Jacob have that night? What did his companion say as day dawned? Repeat Jacob's reply. Verses 24-26. Who was this Man that wrestled with Jacob? Hosea 12: 4, 5; note 4.

6. What name was given Jacob that night? What was the meaning of his old name? What did the new name mean? What question did Jacob then ask? What answer was given him? Gen. 32: 27-29.

7. How was the longing of Jacob's heart satisfied? Verse 29. How may we obtain the same blessing?

8. What did Jacob's night of wrestling represent? Note 5.

9. How may we gain the victory over our sins? 1 John 5: 4, 5; note 6.

10. As Esau came, how did Jacob arrange to meet him? What did Esau do when he saw his brother? Gen. 33: 1-4; note 7.

11. How did Jacob's family greet Esau? Verses 6, 7.

12. What did Esau say about the present Jacob had sent him? What was Jacob's reply? What did Esau tell his brother to do? With what words did Jacob urge his brother to accept his gift? Verses 8-11.

13. What favors did Esau wish to bestow upon Jacob? How did Jacob protest against their journeying together? To what place did Esau then return? Verses 12-16.

14. Where did Jacob first make his home in Canaan? To what city did he afterward remove? What did he erect in his home? Verses 17, 20.

Notes

1. Esau regarded himself as the sole heir of his father's wealth after Jacob left home. He was able to do great harm to his brother, and Jacob felt troubled. "Again the Lord granted Jacob a token of the divine care. As he traveled southward from Mt. Gilead, two hosts of heavenly angels seemed to encompass him behind and before, advancing with his company, as if for their protection." The meaning of Mahanaim is "two hosts, or camps."

2. Terror filled Jacob's camp when he learned that Esau was coming with four hundred men. He could not go back

and he was afraid to go forward. He divided his family into two bands, so if one was captured, the other might escape. He did all he could to atone for the wrong he had done his brother, by sending him a rich present and a friendly greeting. Then he prayed the Lord to give them divine protection.

3. "It was in a lonely, mountainous region, the haunt of wild beasts, and the lurking-place of robbers and murderers. Solitary and unprotected, Jacob bowed in deep distress upon the earth. It was midnight. All that made life dear to him were at a distance, exposed to danger and death. Bitterest of all was the thought that it was his own sin which had brought this peril upon the innocent. With earnest cries and tears he made his prayer before God."—*"Patriarchs and Prophets,"* pages 196, 199.

4. While Jacob prayed, a strong hand was laid upon him. He thought an enemy was seeking his life. In the dark night the two struggled for the mastery till the dawn of day. While wrestling for his life, Jacob remembered his sins, and he also thought of the promises God had given him. When the stranger touched his thigh, he knew the One he wrestled with was not a man, but he would not loosen his grasp, for now he felt he might obtain the assurance that his sin was forgiven. It was Christ, "the Angel of the covenant," who had spent the night with Jacob. He exclaimed, "I will not let thee go, except thou bless me." Jacob felt his own unworthiness, but trusted the promises of God, and the Saviour would not turn away his prayer.

5. "Jacob's experience during that night of wrestling and anguish represents the trial through which the people of God must pass just before Christ's second coming."—*Id.*, page 201.

6. "Jacob prevailed because he was persevering and determined. His victory is an evidence of the power of importunate prayer. All who will lay hold of God's promises as he did, and be as earnest and persevering as he was, will succeed as he succeeded. Those who are unwilling to deny self, to agonize before God, to pray long and earnestly for his blessing, will not obtain it."—*"Great Controversy,"* page 621.

7. "While Jacob was wrestling with the Angel, another heavenly messenger was sent to Esau. In a dream, Esau beheld his brother for twenty years an exile from his father's house; he witnessed his grief at finding his mother dead; he saw him encompassed by the hosts of God. This dream was related by Esau to his soldiers, with the charge not to harry Jacob, for the God of his father was with him.

"The two companies at last approached each other. . . . Leaning upon his staff, the patriarch went forward to meet the band of soldiers. He was pale and disabled from his recent conflict, and he walked slowly and painfully, halting at every step; but his countenance was lighted up with joy and peace.

"At sight of that crippled sufferer, 'Esau ran to meet him, and embraced him, and fell on his neck, and kissed him; and they wept.' As they looked upon the scene, even the hearts of Esau's rude soldiers were touched."—*"Patriarchs and Prophets,"* page 200.

X—The Sanctuary and the Sabbath

(June 7)

Questions

1. WHAT reason is given for setting apart the seventh day as the Sabbath? Ex. 20: 11.

2. What did the Lord declare the Sabbath to be? Ex. 31: 16, 17.

3. After the Lord had sanctified the Sabbath, of what did it become a sign to the people? Eze. 20: 12; note 1.

4. What other term is applied to this same process of sanctification? 2 Cor. 5: 17, R. V., margin; note 2.

5. What was present to act a part in the original creation? Gen. 1: 2, last clause.

6. What is the transforming agency in the new creation? 2 Cor. 3: 18; note 3.

7. From what place and by whom is the renewing Spirit ministered? Acts 2: 32, 33; Heb. 8: 1, 2; note 4.

8. Into whose hands were saints, times, and the law given for a limited period? Dan. 7: 24, 25; note 5.

9. As a result of this, what marked change was made in the law of God by the Papacy? Ans.—The Sabbath, which was the sign of the renewing power of the Spirit of God ministered by our great High Priest from the heavenly sanctuary, was changed to the first day of the week, and became the sign of the power of the Papacy. See any standard Roman Catholic catechism for proof of this answer.

10. What prophecy refers to the restoration of God's Sabbath in the last days? Isa. 56: 1, 2; 58: 12-14.

11. What prophecy marks the time for the restoration of the full gospel message? Dan. 8: 13, 14; note 6.

12. In the final proclamation of the gospel, the message against the beast and his image, what two great reforms must necessarily be joined together? Ans.—The restoration of the knowledge of the true Sabbath and of the mediation of Christ in the heavenly sanctuary.

Notes

1. At the close of the original creation "God blessed the seventh day, and sanctified it." Gen. 2: 3. He then made it a sign of his creative power working to sanctify the people by a new creation. Inasmuch as the original creation is regarded as a birth (Ps. 90: 1, 2, R. V., margin), the Sabbath thus becomes the sign of the new birth. John 3: 3.

2. Sanctification and the new creation are merely different terms applied to the same process. Only that power through which the world was created can accomplish this work. The sign of that power is the seventh-day Sabbath.

3. That the Word of God and the Spirit of God are inseparable in the creative work is shown in Ps. 33: 6, where they are joined together. Compare Job 33: 4 and 26: 13. So it is also in the new creation. Compare 1 Peter 1: 23 and John 3: 5.

4. When Jesus "was received up into heaven, and sat on the right hand of God" (Mark 16: 19), he entered upon his work as priest in the heavenly sanctuary, and this was marked by a special outpouring of the Spirit upon the day of Pentecost. This indicates that the blessing of the Spirit is ministered to us by our High Priest in the heavenly sanctuary.

5. As a political power the Papacy persecuted the people of God and changed "the law" (R. V.), enforcing the observance of another day as the Sabbath in place of the Sabbath of the Lord. Through its domination over the kingdoms of this world the Papacy was able to accomplish these results.

6. The end of the 2300 years is the time of blessing for those who refuse to acknowledge the power of the Papacy, and who, believing these prophecies of Daniel, are confident that the time of its complete overthrow is just at hand. It only remains to give the final warning message, and then the triumph of God's people, after the centuries of oppression by "that man of sin," will be complete. Blessed are they who have a part in that closing work.

The Gospel Gives New Ideals to the Youths of China

ORDINARILY Chinese boys and girls are engaged when they are just a few years old and marry when they are still young. Years ago one of our missionaries adopted a Chinese girl. Her parents were very poor and could not rear her. This girl was educated in our schools, learned music, and became an excellent teacher, having charge of our Girls' School at Yingtak. When she was eighteen years of age, not then engaged, one of our young preachers asked my wife in his behalf to ask this girl if she would become his wife. This preacher belonged to one of the best families. The young teacher, after duly considering the question, replied, "I do not want to marry, I want to get the highest education I can in China, go to the United States and finish in the schools of that country, come back to China and be a blessing to my sisters, who have not had the opportunities I have." This example shows what the gospel is doing to meet the real needs of the Chinese. It is the only power that can meet their needs, and it is doing this whenever it is given a fair chance.—*The Medical Missionary.*

READ good books. Good reading prepares the mind for right thinking; and from right thinking spring the noble character and well-ordered life.

SPEECH is golden in opportunities: what a pity to throw a grain away!—*J. R. Miller.*

The Youth's Instructor

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Woman's Influence

WOMAN was man's first tempter; and though the history of the world is a terrible comment on the evil wrought by this first yielding to wrong through woman's solicitation, there are many youth to-day who are victimized by unholy invitations from the same source. The wine-cup proffered by the hand of the society belle leads many to break their vows to total abstinence, which finally shipwrecks the life. A pack of cards in the hands of a pleasing hostess does its ignoble work for many another young man.

The following incident reveals the deliberate plan of a determined young hostess to beguile a young man into card-playing, despite his avowed intentions never to play again:—

"In a Wisconsin town a young man was converted, having determined to forsake completely his evil ways. A young woman upon whom he frequently called and of whom he thought a great deal, said to a friend of hers on hearing of the young man's reported change of life:—

"I wonder if he will come to our parties now?" That friend replied, 'I don't believe he ever will; and after hearing what he said, I don't believe he will play cards any more.' 'I believe I can get him to play,' said the first. 'I don't believe you can,' said her friend; and they made some kind of bet together, the two girls, both members of the church, though they had no real interest in religion. 'Give me two weeks,' said the first, 'then I will report to you.'

"A few nights after the meeting closed, the young man came to spend the evening with the girl. After a time she said, 'Well, let's have a little game of cards to-night.' 'No, thank you,' he replied, 'I am not going to play any more.' 'You are not? What do you mean?' 'I mean just that—that I am not.' 'Well, I know that you are not going to play with bad men or gamble any more, but you will play with me.' He replied: 'I played my first game in a parlor with a girl, and my last with a gambler in a gambling den. Before I knew it I was gambling with all I could get. I don't propose to start again where I did the first time.' He had turned out a miserable gambler, and he did not intend to be caught a second time that way. They talked on a few minutes together, and then she said: 'O, pshaw! I am not going to let you be so particular. What shall we do if we don't play cards? There is such a thing as being fanatical. I am glad you have changed, but I don't want you to be fanatical. And

right here alone—just you and me—will you not play a little game? I'll never tell.' She pulled out a drawer and from it took a pack of beautifully enameled, gilt-edged cards, and as she held them out to him she gave them that quick snap, music to the player's ear. 'Come on! any game you say, your deal!'

"He looked at the cards; he looked at her. She smiled upon him out of her beautiful eyes; he saw those pearly-white teeth as they flashed out from behind coralline lips; she smiled at him again temptingly. He stood for an instant, looking into her face hesitatingly, then he reached out, took the cards from her hands, and—tossed them over into a corner of the room. He turned and said: 'I have a lesson to prepare to-night for to-morrow's recitation; I think I would better go home and get it. Good evening.' And he bowed and walked out of the room."

Woman should be the last to turn one from the path of rectitude, but if she does seek to beguile into evil, happy is he who has grace enough to resist her unwholesome and unwomanly influence. There are girls who would not for anything seek to lead a young man to smoke, drink, or play cards, but who by their lack of stanch loyalty to right principles in smaller things, lessen their associate's respect for true Christianity and the truth of God for this time. This anchor having been removed from the life, the person is left to drift perhaps to eternal destruction.

Girls, be true to the high calling to which you are called, ever persuading others to attain to the highest in life, through both your words and your life.

The Money Trust

THE committee of the House of Representatives, which was occupied for several months in seeking to determine whether a money trust exists in this country, has given as its finding that there is a money trust, "a linking together of great financial institutions—national banks, trust companies, and private banking houses—by means of the interlocking directorates of many great financial, commercial, manufacturing, and transportation interests; and that those interests thus act in harmony, perhaps to the disadvantage of the community, instead of competing with one another as they ought to do.

"Having satisfied itself that a money trust exists, the committee proposes extensive reforms. It would greatly reduce the power of the directors of national banks, and would compel stock exchanges and clearing-houses to incorporate and submit to government supervision, under penalty of losing the use of the mails, the telegraph, and the telephone; it would prohibit companies engaged in interstate commerce from depositing their funds with private bankers; and instead of letting them sell issues of bonds to banks and brokers, to resell in turn to their customers, it would compel them to advertise their securities and open them to public competitive bidding.

"Such are a few of the many changes and additions that the committee would make in the laws."

"STUDY to be quiet." The most potent forces operate silently: in like manner, strong emotions need not noisy demonstration to prove their existence.

"Do not be so sensitive that your friends must handle you as they would a soft-shelled egg."