

April 7, 1908



PROF. KAMMERLIN ONNES of the University of Leyden has liquified helium.

THERE are one hundred sixty-eight Protestant denominations in the United States.

OKLAHOMA is a vast coal field. It is estimated that she has in her fields 6,000,000,000 tons.

RATS are so common in Uganda that it has been found necessary to bind the Bibles designed for the use of the natives of Uganda in tin.

FIFTY cases of the dreaded bubonic plague, besides several cases of smallpox and yellow fever, are reported in the city of Guayaquil, Ecuador.

ON March 16, 1908, the House of Representatives by a vote of 255 to 5 passed the bill restoring the motto "In God We Trust" to the gold coins of the United States.

ELDER F. C. GILBERT spoke to the church at College View, Nebraska, recently, and although no call was made for means, an offering of four hundred dollars was made for the Jewish work by his audience.

THE Welcome Visitor of Ohio says that a number of young people from Mount Vernon are planning to enter the canvassing work the coming vacation. We hope this can be said of the young people in every one of our training-schools.

"THE grass stem is a marvelous example of architectural achievement, for its height is often five hundred times its diameter. If Washington Monument were built in like proportions, its base would cover an area of less than one square foot."

"TATUMS, a negro town of six hundred inhabitants in northwestern Carter County, Oklahoma, does not sell any town lots to whites or Indians. Tatums has colored preachers, teachers, sawmillers, cotton ginners, merchants, and some retired capitalists, all negroes."

MILLIONS of dollars are due the United States Treasury from duties on goods at our leading ports. On Feb. 29, 1908, New York owed \$22,500,000; Boston \$3,303,257; Philadelphia \$3,200,000. Nine other ports owe enough to bring the sum up to \$32,408,718.

The Church Messenger has some interesting figures regarding the preponderance of Catholics in New England. Rhode Island stands at the head of the list with 47 per cent; Massachusetts, 45 per cent; Connecticut, 36 per cent; Vermont, 32 per cent; New Hampshire, 25 per cent; and Maine, 16 per cent.

THE French ambassador at St. Petersburg recently sent through the Russian mail a letter addressed to an intimate friend in Paris, in which he criticized conditions in the dominion of the czar. His letter was intercepted, photographed, and presented to the czar by Russian officials, with the result that he was recalled immediately to France. The Legion of Honor, however, was conferred on him by France after his recall.

#### What Our Friends Say

Some one suggested that it was hardly modest to tell what the friends of the INSTRUCTOR thought of its effort to render acceptable service; but we are sure the readers are interested with the editor to know that the paper is at least in part fulfilling its mission to our young people; so it does not seem out of place altogether to tell what those who read the INSTRUCTOR most carefully think of it.

By so doing some may receive the suggestion that they are missing much good by reading it only occasionally, and others may receive an inspiration to place it in the hands of those who do not have it, by endeavoring to get new subscribers. A few unsolicited good words from friends follow:—

The paper is one of the finest. E. T. NOBLE.

I am much pleased with the improvements made in the INSTRUCTOR. M. H. BROWN.

The INSTRUCTOR makes a good impression wherever it circulates.— Southwestern Union Record.

I do appreciate the INSTRUCTOR more every issue. Years ago I valued it beyond any other paper for young people, but to-day there is simply nothing that stands any chance for being its rival.

C. L. BENSON.

There is no youth's paper that will compare with the INSTRUCTOR, and parents do their children an injustice when leaving them without it. The YOUTH'S INSTRUCTOR is a mine of information.— H. M. Hiatt.

Mrs. D. E. Scoles recently wrote as follows of her interest: "I praise the Lord for the YOUTH'S IN-STRUCTOR, for I do believe its pure morals have had much to do in turning my child to God. We have always kept the best, cleanest reading-matter before his mind. May God bless the paper!"

Mrs. Behrens, of California, writing of the boys in Hawaii who receive the INSTRUCTOR, says: "I know they have no paper like the INSTRUCTOR. Only yesterday Mr. Behrens said, 'What a nice paper the INSTRUCTOR is now!' My little daughter, nearly twelve years of age, enjoys it very much."

A conference secretary of the Young People's Department writes: "I wish to express my very high appreciation of the YOUTH'S INSTRUCTOR, and to say that not only do I think it is better than ever, but I often hear this sentiment expressed by other young people."

Mrs. R. C. Porter says: "I have wanted to tell you of my growing interest in, and appreciation of, the INSTRUCTOR. The issue of February 18 was an excellent one. I thought it the best that had ever appeared; but when the issue of February 25 came, it was still better. All the articles are so rich in thought, so pure and uplifting, and so educational in their make-up; I wish its circulation could be doubled."

I am so pleased with the changes and improvements made in the INSTRUCTOR that I can not refrain from congratulating you upon it. The INSTRUCTOR has always been an excellent paper, but it is certainly more worthy of its name than ever before. With hearty good wishes for its steady and continued improvement and success in its mission, I am,

> Yours in the interest of the young people, ALBERTA L. LITTLE.

# The Youth's Instructor

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TAKOMA PARK STATION, WASHINGTON, D. C., APRIL 7, 1908 No. 14



#### A Trip from the Cape to Rhodesia

THE distance from Cape Town to Bulawayo is 1,362 miles, and it takes three and one half days to make the trip by the ordinary trains. As we leave Cape Town, Table Bay is to the north and to the west of us, while False Bay is a few miles to the south. Between these two bays is to be seen the white ocean sand, which is but a few feet above the level of the sea, and this has caused many persons to fear that if a tidal wave should come from either the Atlantic or the Indian Ocean, it would sweep across this low neck of land.

The first one hundred fifty miles is the most pleasant part of the journey. During the time we are passing

over this distance, we go through Stellenbosch, Paarl, Wellington, and Worcester. These villages are the headquarters of the Dutch Reformed Church in South Africa, and their best schools are located there. This is the great fruit-growing section of Cape Colony. Nearly all kinds of fruit are to be found in abundance, especially grapes, peaches, apricots, prunes, plums, and pears. There is

also a supply of narjes, guavas, apples, and oranges. Since we are living in the southern hemisphere, our fruit harvest is in February, March, and April; hence large quantities are shipped to England, and it is hoped that New York may yet become a market for this section of South Africa. Near the close of the year apples are shipped into this country from Canada and the States, and it may be that the American cities can find a supply of fresh fruit for their winter markets at the Cape.

As the train winds through the valleys and between the mountains, there are many beautiful landscape views. It is a long climb up the beautiful Hex River valley. At its source we make a large horseshoe turn and reach the tunnel, and then pass through the Hex Mountains into the karoo. This is naught else but a desert, scarcely a blade of grass being seen. A little bush, not unlike the sage-brush of the Western States, is found, and a few little thorn bushes line the banks of the sandy beds of the streams that flow when the country is so fortunate as to have a good shower.

A ride of four hundred miles and we are across this unsightly section of country. There are four or five nice villages located at points where they are able to pump water out of the river beds, or where they can construct a dam for irrigating purposes. It is a dreary country, but there are a few farmers scattered here and there. These depend upon their flocks of sheep and goats, which live from the little bush that grows by the way.

Kimberley is situated about half-way from Cape Town to Bulawayo, and is a city of nearly 34,000 inhabitants, including both white and black. Were it not for the world-famed deBeers diamond mines. Kimberley would be only a good-sized farming village. Less than one hundred miles farther and we are at Taungs. This is a missionary center for the London Missionary Society. Seventy-five or eighty miles to the west is Kuruman, the center from which Dr. Livingstone labored for several years. We are now in Bechuanaland, and it reaches nearly to Bulawayo. There are thousands of natives in this country, but we have never lifted our hands to give them the light of the third angel's message. Is it not time that something was done for this people who have had the light of the gospel for many years?



THE SOLUSI MISSION. THE MARRIED BOYS LIVE IN THE CIRCULAR HUTS

Mafeking is seven hundred seventy-five miles from Cape Town. It is a thriving village in the midst of a large, but thinly settled farming district. The difficulty in this section, as in nearly all South Africa, is the lack of sufficient rainfall. The raising of sheep, goats, and cattle is the chief industry. Very little grain is grown, since the droughts and locusts are almost certain to destroy the entire crop.

From Mafeking to Bulawayo it is nearly six hundred miles, and in this entire distance there is but one village worth the name. There are several railway stations where a few railway people live, and possibly a trader or two, but this is all. There is a great sameness to this section of the country. The veldt is thinly covered with grass and scattered bushes. Large trees are unknown in this section of the country, in fact there are very few places where they can be found in all South Africa.

#### Calling for Thirteen Years

There are large numbers of natives to be seen along the way as we pass through this country, but white farmers are very scarce. I never pass through here without asking myself, Have we done our duty by this people? In the beginning of our work our missionaries passed by this people, although King Kahma urged them to stop and open work among them. Nearly thirteen years have passed since that time, but nothing has been done. How long must this long stretch of country, with its thousands, yes, possibly its millions, have to wait for the gospel of the sooncoming Saviour?

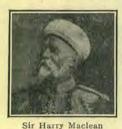
Our first native mission was located thirty-two miles to the southwest of Bulawayo. The Somabula Mission is one hundred fifty miles farther to the north and east. The Barotseland Mission, where Elder Anderson is located, is four hundred fifty miles to the north of Bulawayo. The railroad runs two hundred eighty miles to the northwest of Bulawayo to the great Victoria Falls, and then one hundred seventy miles to the northeast brings us to the Barotseland Mission.

When Brother Anderson went into that country, he was farther north than the railroad, but now it has passed him and is over two hundred miles to the north. We hope soon to have another mission opened at its extremity, and as soon as it is taken farther into the interior, we should have men and means ready to advance with it and carry the third angel's message into every part of this dark land.

We are now looking to our Father for the funds necessary to open a new mission a few months hence, and we pray that he will place the burden of this work on the hearts of some of his children that the money will be forthcoming. Never was there a time when this field was in such need of consecrated men and funds with which to carry forward the work as at the present. W. S. HYATT.

#### Morocco's Kidnapper

RAISULI, one of the professional politicians of Morocco, finds kidnapping profitable. He forced the sultan, in 1904, not only to pay a big ransom for the



release of Ion Perdicaris, an American citizen, but also to make him governor of a considerable province. Raisuli celebrated last fourth of July by kidnapping Sir Harry Maclean, a British subject, who was serving as commander of the sultan's body-guard. Early last month

he received from the British government one hundred thousand dollars and a guarantee of protection in return for the release of Sir Harry. He has also held for ransom the Moroccan correspondent of the London *Times*, as well as other less noted persons. Nothing shows more clearly than the apparent freedom with which Raisuli carries on his trade how disorganized society and government are in Morocco. — Selected.

"THE king of England carries life insurance aggregating \$3,750,000. The emperor of Germany is insured for \$5,000,000. If the czar of all the Russians dies, he stands to win \$4,000,000 in the way of insurance money for his heirs and dependents. The czar's youthful son's life is protected by a policy for \$1,250,-000. The czar's daughter, the Grand Duchess Olga, carries \$2,500,000 on her life. The king of Italy is insured for \$3,500,000, while Lady Curzon has life insurance aggregating \$500,000. Lord Rothschild pays an annual premium of \$40,000 for life premiums on an insurance of \$1,250,000, while Lord Dudley has an estate based on his life insurance of \$750,000."



#### God Overruling in the Establishment of the Boundary Lines of the Great West and Northwest — No. 3

A NEW phase is now put upon the question. A man stands face to face with Daniel Webster and President Tyler, and assures them that they control a territory of boundless possibilities west of the Rocky Mountains. A personal residence of six years and the eight years' experience of the Methodist missionaries, show the climate to be remarkably mild. He claims that with the poorest cultivation, they have produced crops which outstrip the most careful husbandry in Virginia. The fish in the rivers almost interfere with navigation by their abundance. Mr. Tyler and Mr. Webster would as well talk of ceding to Great Britain all New England, as of yielding the northwestern part of the United States. Better still, the claim that seven hundred miles of desert lie east of the Rocky Mountains, and that it is impossible to enter Oregon from the east, is a story of the Hudson Bay Company. The Doctor himself had a wagon in Oregon which he took through the mountains in 1836.

President Tyler showed how his credulity was taxed by his reply: "Your long ride and frozen limbs bespeak your sincerity. Your missionary credentials vouch for your character." The president evidently thought his statements needed the support of his missionary credentials. Dr. Whitman simply asked that no further action should be taken in regard to the boundary west of the Rocky Mountains until he could lead a band of emigrants over, and prove that the passage was open, the climate mild, and the soil rich.

Whether or not Webster distrusted Dr. Whitman, we can not now fully settle. From all the accounts, we are inclined to think that the great secretary believed he was in contact with a half-crazy Western land agent, though he knew that Whitman had no title to a foot of land in all Oregon. But Tyler gave his personal pledge that he would not sign a treaty until Dr. Whitman had time to lead a colony to Oregon. Nor was the effect of Whitman's visit lost on Mr. Webster. In a letter to Edward Everett, then minister to Great Britain, in 1840, Mr. Webster had said: "The ownership of the whole country is very likely to follow the greater settlement and larger amount of population." So he was in hearty sympathy with the effort Jason Lee had already made, and with Dr. Whitman's proposal to take emigrants to Oregon. In his next letter to our minister to England, after Dr. Whitman's visit, Mr. Webster is careful to claim the territory which the Doctor had described in such glowing colors: "The government of the United States has never offered any line south of forty-nine, and never will. It behooves all concerned to regard this as a settled point." Again, near the close of the letter, he says : "England must not expect anything south of the fortyninth degree." England was expecting territory south of the forty-ninth parallel larger than New England, and would probably have secured it, had it not been for the missionaries. Mr. Webster leaves no doubt as to the importance of the missionary occupation of Oregon, in a remark which he later made to a friend:

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"It is safe to assert that our country owes it to Dr. Whitman and his associate missionaries that all its territory west of the Rocky Mountains and south as "Columbia River is not owned by Britain."

le General Lovejoy was not idle. He was spreading reports of the soil and climate of Oregon. Whitman had a brief circular printed in St. Louis, announcing that he would lead without charge a colony to Oregon. Dr. Whitman in June, 1843, met General Lovejoy at a point in Missouri, not far from the present site of Kansas City. Over two hundred families of emigrants had been collected by their joint efforts. Dr. Whitman piloted the party safely across, and when in September, 1843, his long line of two hundred wagons with eight hundred seventy American settlers filed through the Blue Mountains into the valley of the Columbia, the Americans outnumbered the English five to one. The Americans at once organized a provisional government, to counteract the influence of Governor Simpson and the Hudson Bay Company. They elected Dr. Elijah White, who had been sent out by the Methodist Missionary Society in 1836, governor; and this government was obeyed until the United States organized the territory five years later. The Secretary of the Interior, in a decision awarding the Methodist Missionary Society its property at the Dalles, said: "From 1834, when the American Missionaries first penetrated this remote region, a contest was going on as to which nation should finally possess it; and that probably depended upon the fact as to which could first settle it with emigrants." The Hudson Bay Company and Jesuit priests were on the one "On the other were the missionaries of the side. American Board and the Methodist Society, who had established their stations among the Indians, and who attracted the tide of American emigration that turned the scale in favor of our government, resulting in the establishment of the Territorial Government of Oregon, wholly American in interest, which exercised all the functions of government until the erection of the territory of Oregon by Congress in August, 1848." A territory larger than all New England, with finer climate, richer natural resources, and facing the most populous part of the globe, saved to our government by missionary enterprise, is God's way of saying to the Christians of the nineteenth century, "An hundredfold now in this time, . . . and in the world to come eternal life.'

But this is not the end. It took three years after the Americans began pouring into Oregon by the thousand, and were outnumbering the British five to one, to induce Great Britain to sign the treaty. No one dreams that the boundaries would have been settled in 1846, had not a thousand Americans, through missionary effort, reached Oregon in 1843. But in less than three years after the papers were signed by Great Britain, gold was discovered in California, then belonging to Mexico. When the negotiations for our western boundaries had dragged along since 1843, and Great Britain was so loath to give up her claims to that territory, do you suppose that had she waited until gold had been discovered, and reports of untold wealth had spread like wild-fire - do you suppose that she would then have signed away her claim?

But there is another important fact which made it necessary that the Oregon question should be settled not only before gold was discovered in 1849, but before 1847. The southwestern part of the United States, embracing part of Texas and all of New Mexico

and California, was owned by Mexico in 1846. A few days before Great Britain signed the final settlement, war had broken out between Mexico and the United States. Had this information reached Great Britain in time, she would at least have delayed to sign the settlement of July 18, 1846. Then, in our war with Mexico of 1847-48, Mexico would have been backed by Great Britain. With this international alliance, the war would have been prolonged until the discovery of gold in California in 1849. This discovery would have led Mexico and Great Britain to redouble their energies for a share of this western continent. How rapidly these events press upon each other! How certain it seems that only the missionary settlement of Oregon, which resulted in the yielding of all claims by Great Britain before she learned of the Mexican War, alone saved us from a great international contest with two powers, one of them the greatest upon the earth! You say we could have waged the war, and won against both foreign powers? - Possibly. But the United States could far better afford to give the Methodist Missionary Society and the American Board each a million dollars a year in perpetuity, than to have incurred the cost of this gigantic war, to say nothing of its bloodshed and desolation. These Flathead Indians were as truly messengers from God as was the vision of Macedonia which came to Paul; and Jason and Daniel Lee and Marcus Whitman were following plans as miraculous and providential as was Paul in leaving Palestine and starting toward the west.

But the acquisition by the United States of territory of vast extent and boundless wealth in the West was not the end of this missionary enterprise. We sent our brothers from our homes to bless others. They indirectly helped us win the greatest blessing for our-The Oregon and California questions were selves. settled in our favor in 1848, only thirteen years before the Rebellion. We were then called upon to fight the great battle between freedom and slavery. You remember that east of the Mississippi River the free territory of the United States embraced a little over four hundred thousand square miles, and the slave territory nearly five hundred thousand square miles. After crossing the Mississippi River and running through Missouri, the line embracing the slave population fell rapidly south. It was this western territory into which slaves had not yet been brought, that restored the balance in area to the side of freedom in this contest; and California, which had been acquired for the extension of slavery, was providentially settled by northern enterprise, and poured her money and men into the Union side, in that gigantic struggle. Suppose this territory had been held by foreign powers, or that we had been still battling for this rich gold-field against Great Britain and Mexico, and suppose that Mexico had been backed by France in the interest of absolutism and the Roman Catholic faith, as was the case during the Rebellion, do you not see that it would have been, humanly speaking, impossible to free the slaves and preserve the Union?

The divine providence is the key to our national history. The British lion chained at the forty-ninth parallel of north latitude; Mexico, backed by France, rendered powerless by the previous conquest of her western territory; and California pouring her gold and her men into the Union side, during the struggle for freedom, are God's providential way of saying to a missionary age, "An hundredfold now in this time. . . . and in the world to come eternal life."

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Once more the contest in Oregon was a struggle between the Jesuit and the Protestant. Had not Jason Lee gone to Oregon in 1834, and led out American missionaries and settlers; had not Marcus Whitman followed his missionary call in 1835, and led over nine hundred more American settlers in 1843; had not the four or five thousand American settlers organized a provincial government in 1843, and elected a Methodist missionary governor, the Jesuits, backed by Great Britain in the north, and by Mexico and France in the south, would to-day hold our western coast, and shape its civilization for the twentieth century. A territory larger and richer than the Atlantic seaboard saved to our government; the whole Pacific slope thrown into the balance of freedom in the greatest contest of the nineteenth century; and the civilization of the richest part of the globe started under Protestant auspices for the twentieth century, are God's providential answer to the faith of Jason and Daniel Lee, and Marcus Whitman and H. H. Spaulding, and the unnamed heroes and heroines who died for the Oregon mission, and whose bones rest in unknown graves in the valley of the Williamette.- J. W. Bashford, in Missionary Review.

#### Obeyed the Sultan

THE sultan of Morocco is somewhat barbarous in his methods, in spite of his acquaintance with European civilization. Not long ago, the story runs, he visited his private menagerie with a camera in order to photograph the animals. Arrived before the cage G of a tiger, the monarch suddenly desired his minister of war to hold the beast by the ear until he photographed it. Dreading the master's displeasure if he refused, the trembling minister approached the cage. and, thrusting his hand between the bars, grabbed the animal by the ear. With a fierce growl the tiger sprang to its feet, while the wretched minister clung grimly to it, divided between fear of the tiger and dread of the sultan. At that moment, to his inexpressible relief, the camera clicked, and his ordeal was The over. His courage did not go unrewarded. sultan has distributed numerous copies of the photograph as an evidence of his skill as a photographer and of the pluck of his war minister .- Selected.

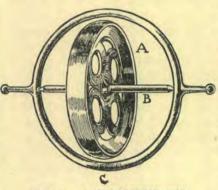
#### A New Conference

THE American people are charged with wasting the natural resources of the country, wasting its coal, iron, ore, and lumber. So serious is the charge, that the President has convoked a conference of the leading men of the United States to consider the best means of conserving the country's resources. "This conference will be attended by the governors of all the States and Territories and by three prominent men to be selected by each, members of the cabinet, the Supreme Court, and Congress, members of the Inland Waterway Commission, and representatives of national organizations which particularly are interested in the subjects to be discussed. Besides these distinguished dignitaries, the President has invited five leading citizens to attend the conference as the guests of the nation. These are: Grover Cleveland, ex-president of the United States; William Jennings Bryan; Andrew Carnegie, the well-known philanthropist and steel magnate; James J. Hill, the Northwestern railroad builder; and John Mitchell, the great labor leader."



#### The Gyroscope

ONE of the most wonderful instruments in the world is the gyroscope. Some of the facts in connection with this scientific toy have been the cause of much investigation and study among men of science. Perhaps most of our readers have seen gyroscopes or gyroscopic tops, and are more or less familiar with the startling experiments that may be tried with them. But probably few are aware just how much attention one of the properties of the gyroscope is at present attracting in the mechanical and scientific world. The thing about gyroscopes that is claiming such decided attention is the fact that, when you have once set the heavy wheel in motion about the axle that passes through its center, this axle will resist an attempt to change its direction. To understand this clearly, refer to Fig. 1, where a very simple gyroscope is illustrated. A is a wheel having a heavy rim, B is the axle. This axle may be pointed at each end. These points fit in suit-



able holes in the ring C. By wrapping a cord around B and giving it a sharp pull, the heavy wheel A will be set in rapid rotation. The whole may be handled by means of the outside ring C. We will suppose that you have

FIG. I. A GYROSCOPIC TOP

set this gyroscope in rapid rotation. If now you carry it about the room, being careful, however, to keep the axle B pointing in the same general direction, you will probably notice nothing peculiar. But if you attempt to change considerably and quickly the direction of B, you will notice a distinct resistance of the gyroscope. This may seem curious to you, but not very important. However, if you will read carefully the remainder of this article, I hope to show you that it is really a very important thing.

A bicycle really consists of two gyroscope-like wheels. When these are in rapid rotation, it requires considerable force to change the direction of either axle. But that is the same thing as saying that it requires considerable force to tilt either wheel, and this, combined with the onward motion, is the reason that the rider has no trouble in balancing himself and avoiding a fall to either right or left. So you see that the gyroscopic principle is of great importance in bicycles. In fact, there could be no real bicycles if it were not for this principle.

The main difference between a rifle and a smoothbore gun is that the inner surface of the rifle barrel has one or more spiral grooves cut into it. The object of this is to permit a portion of the material of the bullet or projectile to sink into the grooves. As the projectile is forced out of the barrel, these projections into the grooves tend to remain there, thus giving rise to a spinning motion. In fact, it is not only going forward, but it is rotating rapidly as it goes. The axis will tend — in accordance with the gyroscopic principle — to maintain, without change, its direction. But that is really saying that the projectile will tend to remain in its true course. So this is why a rifled gun shoots straighter than a smooth-bore.

You know we are told in our geographies that the inclination of the axis of the earth is the very thing that gives rise to our change of seasons. In fact, if the axis of the earth were always perpendicular to the plane of its orbit, people in any given locality would always have the one season. If it was a terrific summer, they would always have it; if winter, it would never change. Likewise, if the axis of the earth should go through changes of direction, we should have cor-

responding changes in the climates. So, you will readily grant, it is of great importance that the axis should continually point in the same direction. The regular change of the seasons, promised to us in Gen. 8: 22, is secured by this means. Now this persistence of the axis of the earth in always pointing in the same direction is another example of the gyroscopic principle. Really the earth is a



A REPRESENTATION OF A GYRO-SCOPIC TRAIN

monster gyroscope, and the rotation on its axis tends strongly to maintain the direction of that axis.

#### Regulating a Compass by the Gyroscope

On board ship it is frequently necessary to make observations of the heavenly bodies in order that the captain may know precisely where his vessel is. If you have ever looked at a star through a telescope or spy-glass held in the hands, you will probably realize that the rolling and pitching of the deck of a ship would seriously interfere with the observations. Well, about the middle of the nineteenth century, Prof. Piazzi Smyth sought to correct this. To do this, he constructed a platform for the telescope, or other instrument, and so connected this with one or more gyroscope wheels that it was held to an even and quiet position. He worked at this problem with a great deal of interest and perseverance, and at last produced a successful mechanism. This was tested by Professor Smyth on board the yacht "Titania," when on a voyage to Teneriffe, and was reported as entirely satisfactory.

A practical application of this tendency of rotating bodies to preserve the direction of their axes has been made in Germany to the compasses used on shipboard. The needle of the ordinary mariners' compass is very sensitive. This has been necessary hitherto in order that it should maintain its direction toward the north during the motion of the ship as it moves about in different directions. It has been found, however, that the rolling and vibration of a ship interfered with the needle. If the waves were rolling high, the needle was apt to become unreliable because of its great sensitiveness to shocks. However, if when the needle was known to be in an undisturbed condition, it is connected properly with a gyroscopic wheel kept continually in motion, this wheel would hold the needle to its true position. The usual shocks on shipboard would have practically no effect. Experiments have been made abroad in this connection, especially with the Anschütz compass. The results of these experiments have been very favorable.

Another application has been made by Consul Schlick, also in Germany. This has for its object the prevention of the rolling of ships. By using a very heavy gyroscope and running it at a pretty high velocity, it was found possible to control the stability of a ship. The method of arranging the gyroscope is not quite a simple one. But the fundamental principle that enables the inventor to succeed is the fact that the rapidly rotating wheel tends strongly to maintain the direction of its axis. This is not a dream. The Hamburg-American steamship line is reported as having bought the patent rights and ordered apparatus costing about \$37,500 for use on the steamer "Sylvania" plying the North Sea.

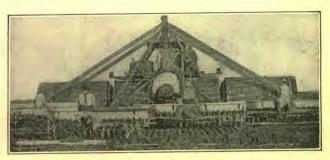
That gyroscopic action may sometimes be a dangerous thing is thought by some persons. There are those who explain the foundering of the torpedo-boat "Viper" in the following way: They suppose that the turbine wheels in the back part of this boat acted as a gyroscope, and held the boat in nearly a fixed position. They then suppose that the front part was wrenched by the action of the waves, resulting in the boat's being broken into two parts. It has been ascertained that the boat really broke in two.

An English engineer, by the name of Brennan, has devised a railway which requires but a single rail. The great problem was, of course, how to keep the cars from tipping. This he solved by the use of the gyroscope, applying it somewhat after the method of Schlick. An experimental railway has been constructed on a small scale, and found to work well. In the illustration the gyroscopes which steady the cars are supposed to be underneath, hidden from view.

Some one has suggested the use of the gyroscope in keeping air-ships steady.

The gyroscopic principle is certainly an important one, and it promises to play an important part in the future. If you have any doubt whether you fully understand it, read this article over again, and buy a twenty-five-cent gyroscopic top and experiment with it.

But, what is perhaps most important of all, let us learn from the story of the gyroscope not to despise things and principles that at first sight appear little and trifling.— J. F. Springer, in St. Nicholas.



THIS MAMMOTH MACHINE PLOWS, HARROWS, AND PLANTS AT ONE TIME A STRIP 44 FEET WIDE. IT AVERAGES IOO ACRES EACH DAY

#### Interesting Facts

THE New York post-office handles each day an average of 100,000 souvenir post-cards.

It is estimated that the tropical imports into this country this year will reach \$600,000,000.

Japan supplies eighty per cent of the world's pure camphor; China twenty per cent. The trees are destroyed in obtaining camphor. In Japan, 3,000,000 camphor trees have been planted since 1900. Most of these are on the island of Formosa.

Every man who chops down a tree in Norway is compelled by law to plant three saplings.

Europe loses 960,000 natives every year through the floods of emigration, while only 200,000 return in the same period.

The value of the shipping passing every year through the Suez Canal amounts to about \$55,000,000, and the bulk of it is English.

Large naphtha fountains and an entire naphtha lake have been found by Russian engineers on the Russian section of the island of Sakhalin. It is said that a line of steamers will soon ply between the island, Vladivostok, and Japan.

As a result of the operations of big dredging companies, Mr. Thompson, Canadian member of parliament for Yukon, declares that within five years the Klondike gold output will reach \$20,000,000 per annum.— Woman's Magazine.

#### Clean Milk a Necessity

CLEAN milk is a necessity if we would save from death many thousand infants, and older people too, in this country alone every year. Dr. Charles Harrington, the assistant Professor of Hygiene at the Harvard Medical School, and Secretary of the State Board of Health of Massachusetts, says that the great infant death-rate throughout the world is due largely to the feeding of "dirty milk" to the babe. Germany loses every year, it is said, 400,000 of its 2,000,000 new-born children. England and Wales from the years 1893-1902, averaged one hundred fifty-two for every thousand children. Some years the death-rate is much larger. "In the third quarter of a recent year no fewer than 52,837 infants died in England." Russia has a death-rate of five hundred to every one thousand born.

It is not possible to give the annual death-rate of infants in our own country, as there are but few States that provide for registration of the vital statistics. The District of Columbia had, in 1900, an infant mortality of 274.5; Rhode Island, 197.9; Massachusetts, 177.8; New Hampshire, 172. The death-rate of the cities varies from 419.5 to 186.5.

Many things go to prove that unclean milk is the main factor in producing so large a death-rate. From a report given by English authorities of one district, says Dr. Harrington, we learn that "of 2,860 infants 1,960 were suckled, and 840 were bottle-fed; and of the former but two died of diarrheal disease while of the latter the number was fifty-nine." From the rate of the latter the former should have shown a record of 138 deaths. "In another district ninety-six infants died during seven weeks of the summer of 1905, and seventy-five of them died of diarrheal disease. Nearly every one of these was bottle-fed. In still another, of all the infants that died of diarrheal disease between the ages of six and twelve months, during an entire year, eighty-nine per cent were bottle-fed."

Dr. Harrington states that the great difference in the death-rate between the natural-fed child and the bottle-fed, is not due to the difference in the composition of the milk, but is due to the fact "that ordinary market-milk is *almost everywhere a polluted, dirty* food."

He further states that "in Massachusetts, within the past year, nearly every one of the outbreaks of typhoid fever of sufficient magnitude to cause public concern has been traced to unsanitary dairies, where pre-existing cases had occurred the patients being cared for, perhaps, by those who handled the milk, or themselves doing the milking and handling before taking to their beds or after apparent recovery."

The only sure preventive is in insistence upon absolute cleanliness of the dairy. Be willing to pay more for clean milk than for dirty milk, and thus encourage cleanliness. If you do not know the condition of the milk brought to you, be sure to Pasteurize it thoroughly. But even this will not make clean milk out of impure milk. Perhaps it would be as well to use less of the substance that in all probability would reveal to the microscope hundreds of millions of swarming bacteria to every half thimbleful, especially since these germs are the dreaded tubercular, typhoid, cholera infantum, and other serious disease germs.

#### Knowing God

#### (Concluded from page thirteen)

when this was done, the three Hebrews were cast in. So furious were the flames, that the men who cast the Hebrews in were burned to death.

Suddenly the countenance of the king paled with terror. He looked intently into the glowing flames, and turning to his lords, in tones of alarm, he inquired, "Did not we cast three men bound into the midst of the fire?" The answer was, "True, O king." His voice trembling with excitement, the monarch exclaimed, "Lo, I see four men loose, walking in the midst of the fire, and they have no hurt; and the form of the fourth is like the Son of God."

Nebuchadnezzar knew enough of the true God through Daniel to know whose was the form of the fourth in the flames. With remorse and shame, the king cried, "Ye servants of the most high God, come forth." And as they obeyed and came forth, there was not even the smell of fire upon their garments.

God asks the youth of to-day to serve him with the same earnest purpose that these Hebrew youth revealed. He bids you make straight paths for your feet. He does not promise you that your Christian life will be free from trial; for the enemy will come in some form to every child of God. But in every trial you may claim the companionship of the Son of God. "Lo, I am with you alway," he declares, "even unto the end of the world." "When thou passest through the waters, I will be with thee; and through the rivers, they shall not overflow thee: when thou walkest through the fire, thou shalt not be burned; neither shall the flame kindle upon thee. For I am the Lord thy God, the holy One of Israel, thy Saviour." MRS. E. G. WHITE.

WHOEVER quarrels with his fate does not understand it.

TAKE the God-side of every argument, and you can not lose.



#### Hearing



LWAYS, when a bird is singing, it is clear That the little thing is happy, and we hear But the voicing, in his song, Of his joy so deep and strong That it brims and bubbles o'er in tuneful cheer. Never break the flowers' voices into sound, Yet, in scent and grace, they rise distinctly round;

With our eyes we hear them sing; Nostrils hear their accents ring, While their throats pour out their fragrant joy profound.

List'ning well is what makes all life's music heard; Ere we love its song, we love the singing bird; Look for beauty,—'twill appear; Hark for sweetness,—it is near; And soul music filters through a loving word.

MINNIE ROSILLA STEVENS.

#### Calls Cat by Telephone

FRANK WHIPPLE has a cat named Nigger, which not only knows his name but recognizes his call over the telephone. Nigger is perfectly at home both at the Whipple residence and at the express office, and sometimes at the latter place makes himself a nuisance by walking over the papers on Frank's desk where he is trying to write. Telling the cat to keep off does no good, but an effectual means of getting rid of his catship has been discovered by asking Mrs. Whipple to call the animal home, and when his mistress says, "Nigger! Nigger!" over the phone and the receiver is held to the cat's ear, the owner of the name scampers for home as fast as four black feet can carry him. - The Times.

#### Learning Not to be Careless

WHEN I was a boy, I never could keep a pocketknife any length of time. I cared enough, and tried hard enough, but in vain, till I spoke about it to a man who had a knife which he had carried for a number of years.

He gave me a quizzical look and said, "Never lay your knife down, and you'll never lose it."

I thought at first he was joking; but I had earned the money to buy a new knife. So I took him in earnest, and I kept that knife more than a year. Then one day I forgot, laid down the knife, went off and left it, and never saw it again. But I have often kept a knife two or three years just by observing this rule; and I never waste a minute in hunting for my knife. When I want it, it's always there in my righthand trousers' pocket.- The Myrtle.

#### Two Ways to Travel A True Story

THE long train drew into the "Dinner Station," and the hungry people began to bestir themselves, and to step briskly down the aisle, and across the broad platform toward the dinner. Frances and Bruce and Willy Wisp were hungry people, but they did not bestir themselves. Their dinner was in the basket. "O dear," softly sighed Frances, "I wish we were

rich!" "So do I," sighed Bruce, but not softly; "then we'd go 'cross there too and eat our dinner out of plates and knives and forks. And we'd step down out of the parlor car - not this common car -

and when the conductor said, 'All aboard!' we'd fold up our napkins like everything and run back to the parlor car, and sit in big, soft seats."

Frances' eyes were wistful, she was thinking especially of Loubelle Weir. Loubelle was in the parlor car, or else across there in the great, clattery, chattery restaurant. They had seen her get on the train, stepping daintily in her beautiful white clothes. They themselves had stepped up onto this common car, with mother and the big basket behind.

"Dinner's ready!" mother called from her seat. She had a white napkin spread on the seat beside her, and grandmother's biscuit, and cookies, and little round tarts laid out on it. She was smiling gaily. The three children crossed the aisle and sat down facing mother. They were hungry, and grandmother's things tasted good, but there was a little bitter flavor to them all, just as if grandmother had made a mistake and flavored them with extract of envy, instead of vanilla. While they sat and soberly munched they were thinking of Loubelle Weir and her dinner with a capital D, and of the parlor car.

"I wish we could travel 'ristocratic'ly!" burst out Bruce at length, unable to restrain himself. "I wish we were in the parlor car. I don't like traveling in just common cars." "I don't either," Frances agreed. a little less tumultuously. "I'd rather have a white dress on and sit in a lovely cushioned chair with plenty of room."

"How would you like to travel at the rate of two miles an hour — in a cupboard — with the pigs?"

The voice was deep and pleasant, and came from directly behind. A kind old face, framed in white hair and beard, was nodding at them over the seatback.

"Well, how would you like that?" repeated the deep voice. "Because I know of three children that traveled that way. They were relatives of mine. If you are through with your dinner, and your mother is willing, come over into my seat, and I will tell you how it happened," the deep voice went on, pleasantly.

"It was quite a little while ago - about a hundred fifty years," the old gentleman began, his eyes twinkling down at them. "My great-grandmother was about as old as you, I should say," nodding at Frances, "and she had two brothers younger still. Her father and mother moved from one little town to another. There were no railroads, and they must go in carts drawn by gentle, plodding old oxen - all the family, and all the furniture, too. And the children - the story has come down very straight - did not go in the parlor cart. There was a huge old cupboard with a door above and a door below, with a partition between the divisions. It is in existence now. I have seen it many a time. Well, the children's father laid this great cupboard down on its back in the ox cart, and proceeded to pack the three children in one of its compartments, and the pigs "- the old gentleman paused dramatically -" the pigs in the other! And that was the way they traveled, all the way to the new home - jog-jog, jog-jog, jog-jog. They must have bumped about, and the pigs must have squealed. How much would you have liked that?

"Not a very luxurious way to travel, was it? But, do you know, I rather think those three little shavers thought it was great fun; thought they were traveling in style, most likely! And the pigs - it must have been a great day for the pigs.'

Frances and Bruce and little Willy Wisp went back soberly to their own seats. They had forgotten Loubelle and the maid, and the dinner with a capital D. Back and forth across their minds jogged a great ox cart with a huge cupboard inside, laid on its back, and in one end were three children, and in the other end were pigs. They could hold their breath and almost hear the children laugh, and the pigs squeal.

"What a comfortable car this is!" Frances said, by and by.

'How fast we go -'most fly!" said Bruce.

"And there are such nice folks in the car."

"And nobody in the other end is squealing."-Selected.

#### Some of My Bird Neighbors

A FEW rods from my home lies a dead tree trunk, in the bark of which acorns are thickly set. This curious specimen of inlaying is said to be the work of woodpeckers, they having apparently bored holes in the bark, then pounded the acorns in. The object of this scheme is believed by some persons to have been to attract insects to the acorns, so that the insects could be easily seized.

Woodpeckers are not always so shrewd in their endeavors to provide a future food supply. Some of these industrious birds discovered in our windmill a small hole through which oil is poured to lubricate the machinery. Thither they brought acorns, dropping them into the aperture, regardless of the fact that they landed beyond reach.

A hollow post likewise proved a too secure storehouse, for the birds, after putting many cherries into it through a crack, were unable to gain access to their hoard when they wished to draw therefrom.

A tiny bird used to fly persistently at his own image in one of our windows. He would not desist even when his breast bled from beating against the glass. When first we observed his antics, we thought that he was seeking winter quarters; but when the window was left open, he evinced no inclination to enter. We discovered that by shading the window so as to prevent a reflection, we could insure a surcease of the attacks. It was sometimes inconvenient, though, to have the window shaded; and the poor little fellow was very prompt in observing the return of this semblance in the pane. He seemed to have scarcely another interest in life. He became thin and weak from his exertion, and mayhap his mental agitation, and finally, as an act of pity to him, and to relieve the family of the harrowing spectacle, we caught him, and carried him so far away that he never returned.

Not thus tragic was the career of a solitary duck that was reared with a flock of chickens on our place. Notwithstanding the fact that her ancestors were wont to lodge on the ground, this duck took for granted that she should sleep on the perch, as did her associates. She seems to have overlooked the fact that her feet were not of the prehensile type, or else she was too energetic to be thwarted by an adverse heredity; and by perseverance she acquired skill to balance herself on a roost, even when asleep - an encouragement to aspiring human beings!

ADELAIDE D. WELLMAN.



#### Work for Missionary Volunteers - No. 8 Distribution of Literature

THERE are many ways of distributing our literature, but let us always remember that the definite personal effort is, usually, the most satisfactory, and the most pleasing to God.

We have known of instances where a timid person has gone after dark and thrown a tract over the fence into the yard of a stranger, and God, because of his great love and goodness, has brought about the salvation of the person by its means, but there is doubtless a better way.

We should be on the lookout for papers, tracts, pamphlets, and books which are of special interest to young people and children. By lending one of these we may often arouse an interest or create a bond of sympathy which will pave the way for the introduction of reading or conversation directly upon our faith. The IN-STRUCTOR, Signs, and Watchman contain articles which are of deep interest to young people, and they may be used as an entering wedge.

Almost any intelligent young person, whether he makes a profession of religion or not, will read with interest some one of the following books and pamphlets, and doubtless there are many more equally as good: "Life of Joseph Bates," J. Hudson Taylor's "Retrospective," President King's "Rational Fight for Character," "The Lover's Love," "The Passion for Souls," "The Master's Greatest Monosyllables," "Individual Work for Individuals," "Shorter Life of Moody," or any one of the many interesting missionary biographies.

If we wish to give a small tract, we have "An Astronomer's View of Our Father's house," "How Esther Read Her Bible," "The Name," and others of equal value.

The lending of papers may open the way to solicit subscriptions for them, while the person to whom we lend a book may desire to purchase a copy for his library or to present to a friend.

If such efforts are put forth with a definite end in view, and are accompanied with much earnest, sincere prayer, we shall be surprised to see how much will be accomplished through the blessing of God upon the work.

A commendable work may be done by securing subscriptions to our missionary papers, the Signs and the Watchman. Hundreds have accepted the truth in the past by the distribution of these periodicals and the millions of pages of tracts which have been scattered over the world. But we should remember that while God can and does bless the seed which is sown broadcast in a general way, yet we need the experience which comes from a personal contact with, and burden of soul for, the unsaved with whom we are acquainted. We are living in the "time of harvest," and the work of sowing and reaping go hand in hand. In past ages men have sowed the seed which may have been years or centuries in maturing the harvest, but we are living in the age of "unspeakable privileges," when we may have the joy of "going forth . . . bearing precious seed" in the morning, and returning in the evening "bringing our sheaves with us."

A gentleman visiting a glass manufactory saw a man molding clay into the great pots which were to be used later in shaping the glass. Noticing that all the molding was done by hand, he said to the workman: "Why do you not use a tool to aid you in shaping the clay?" "There is no tool that can do this kind of work," replied the artizan. "We have tried a number of tools, but somehow it needs the human touch."

So in our Christian work it is that particular, personal, human touch which God is pleased to use to save souls.

In the fifty-eighth chapter of Isaiah, we have our great commission to engage in Christian Help work: "Is not this the fast that I have chosen? to loose the bands of wickedness, to undo the heavy burdens, and to let the oppressed go free, and that ye break every yoke? Is it not to deal thy bread to the hungry, and that thou bring the poor that are cast out to thy house? when thou seest the naked, that thou cover him; and that thou hide not thyself from thine own flesh?"

And the precious promise to the workers is, "Then shall thy light break forth as the morning, and thine health shall spring forth speedily: and thy righteousness shall go before thee; the glory of the Lord shall be thy rereward. Then shalt thou call, and the Lord shall answer; thou shalt cry, and he shall say, Here I am."

A few months ago three members of a Young People's Society in a large city were on their way to the prison with the *Life Boat* and other literature. One asked the question of the others, "Why are you going to the jail with these papers?" And the reply was, "When Jesus shall come and shall gather at his right hand all his faithful children, I want him to say to me, 'I was in prison, and ye came unto me.""

MEADE MAC GUIRE.

#### Listened to the Voice of Conscience

LADY HUNTINGTON, riding to a ball one evening, was suddenly struck with the question, "Is this the best way to spend my time?" With that question there flashed upon her the vision of her possibilities, and instead of seeking any longer the cheap honors of a society belle, she became the gentle benefactor of others, marking out a life purpose for herself; and when she died, a wail of sorrow went through London. — Daniel Martin.

#### The Gibraltar of Truth

WE live in a time of strong controversy over all the greater issues of life. The most passionate tempest of all beats upon the Bible. But this wondrous book breasts all the raging billows of theological agitation. Churches rise and wane, sects have come and gone, schools of thought have been created and superseded, systems have been evolved and extinguished; and in the midst of all, this monument of inspiration and embodiment of revelation remains intact as when the first complete canon was sent forth. It has been forcibly said that the Bible is the incarnation of the Holy Spirit. The world at last seems to realize that in it there is something invulnerable and imperishable. It is the Gibraltar of truth, on which storms of opposition can only beat themselves to death .- Christian Commonwealth.

#### Not Popular Below

At one of the large railway stations in New York there is often seen quite a crowd of passengers at the small gate leading from the large waiting hall on the platform. In winter some of the passengers, after they have procured their tickets at the booking office, thoughtlessly, stow them away safely in their pocketbooks, or inside the pockets of their large coats, forgetting that when the time for going out to the train comes, they will each have to show his ticket at the iron gate.

The scene here is almost a painful one. With hands full of small traveling-bags and wraps, nearly every one, on being told that he must show his ticket, tries to persuade the inspector that it is all right — he has his ticket, but has stowed it away underneath. The repeated request that all must show their tickets, draws forth the protest of how great a cost of time and convenience it will incur to do so, which, as the inspector, of course, never yields, too often ends in some hard and abusive language being poured upon him.

One day a passenger remarked to the inspector, after he had finished his enormous duties, "You seem to be anything but popular with the crowd." "I care little for that," he said; and turning his eyes up to the general manager's windows, which looked down into the waiting-room, he added, "all I care about is to be popular up there."— The Traveler's Guide.

#### Try Again

At the beginning of the present year you may have resolved to go forward not only in knowledge, but in conduct and character. There was an evil habit to overcome, or a good and noble one to attain. Some besetting sin was to be grappled with and cast out; some infirmity of temper, causing shame to yourself and sorrow to those around you, had to be vanquished. And you resolved to seek Christ for the canceling of your past guilt and the renewal of your heart and Most prudent resolutions! But were they faithlife. fully kept, and have they borne good fruit? Alas. no! the conquest is unachieved, the enemy unsubdued. Over all those good intentions truth almost compels you to inscribe the depressing word, "Failure." A resolution broken can not be tied again like a snapped cord. An opportunity lost is a loss of moral power, rendering future failure more probable. But be of good cheer! Now is the time to snatch victory from defeat. Now is the time to forget "those things which are behind," and reach forth " unto those things which are before." Tests will come, and "gusts of evil suggestion from unexpected quarters will threaten to swerve you from your course; but your God-given grit, multiplied by his power, will bring victory." Are you going to say: "The year is spoiled; there is no use in trying to save what is left "? Don't say it! "And the Lord said unto Joshua, Get thee up; wherefore liest thou thus upon thy face?" "Up," friend, and "press toward the mark for the prize." Did you resolve, and fail? Study Phil. 4:13. God's strength will help you to forever shun that which caused this temporary setback. Make a new start, for we "fall to rise, are baffled to fight better, sleep to wake." We must begin anew; we can not fall down defeated and disgraced. Late blossoming is better than none at all, and may lead to good fruit. Let us take advantage of this spring-time of the new year.

(Concluded on page thirteen)



MATILDA ERICKSON . . . . . . . . . . . . Secretary

#### Study for Missionary Volunteer Society Program

OPENING EXERCISES :-

Music.

Roll Call: Texts on Wisdom. Scripture Reading: Prov. 2:2-11. Prayer.

BIBLE STUDY: Matt. 23: 16-22.

BOOK STUDY: "Ministry of Healing," pages 451-457. READING: "The Gibraltar of Truth" (page 11).

Bible Study

Note: Some member might prepare a study based on Matt. 23: 16-22. This scripture contains many valuable lessons. It shows a reversal of things. The Jews valued the temple above God; and they failed to look beyond the very things that were designed to point them to God. One morning I saw the moon between two large buildings. It looked very small comparatively. Yet, were the buildings placed on either side of the moon, the eye could not have seen them. Appearances often deceive us. If the temporal things around us could be placed beside the eternal, the former would fade away.

Book Study

IMPORTANCE OF SEEKING TRUE KNOWLEDGE:-

What standard has God set before us? Page 451. What price must be paid for a noble character? for one act of carelessness? Pages 452, 454.

Show the difference between "purpose" and "accomplishment." Page 452.

What did Paul do daily with his desires? Page 452. Upon whom does the responsibility of success rest? Page 453.

THE SCIENCE TO BE MASTERED: ----

What is the most important science? Page 453.

How will a thorough course in it influence mind, heart, and heredity? Page 453.

NO TIME TO LOSE: ---

Show that the use made of time decides eternity. Page 454.

Consider questions on page 454.

What will the crown of life cost? Page 455.

NEED OF SELF-RENUNCIATION : ---

To what does the spirit of self-sufficiency lead? Why? Page 455.

CHRIST THE FOUNTAINHEAD OF TRUE KNOWLEDGE: — Upon what does spiritual life depend? Page 456. Discuss the questions on page 456.

What is the highest education? Why? How is it obtained? Page 457.

#### Missionary Volunteer Reading Course - No. 23

"INTO ALL THE WORLD," pages 113-119; Test Questions, 20-27; pages 213, 214; also parts of questions 7, 8, and 15 omitted in previous lesson.

"Outline of Mission Fields," pages 32-39; Supplement, pages 10-13.

#### Australia

How, when, and by whom was our work in Australia opened? Compare the number of Sabbath-keepers in 1904 with the number in 1906.

What is the per cent of increase?

Who has charge of the general work?

Draw a map of Australia, including Tasmania and New Zealand.

Locate the conferences, two early churches, three schools (including that in West Australia and the one in New Zealand just organized), one sanitarium, and one publishing house.

What was the attendance at the Avondale school in 1907?

What literature does its press produce?

What has the school recently given to missions?

What has been done for the educational work in West Australia? In New Zealand?

Who are the Maoris? How is the work progressing among them?

#### Polynesia

Tell the story of the "Pitcairn" cruiser.

How many mission fields in the Australian Union? Locate them. ("Into All the World" does not give a complete map of all.)

Name five groups of islands where our work is begun.

How many of these have schools?

How do the Society Islands get their paper? The Cook Islands?

What group reports five churches and one school? Who comprise the students in the school of the Society Islands?

Where was the work opened through medical efforts?

What is the school in Fiji doing?

Give the Fiji report of 1907; the Pitcairn; the Samoan.

Name books that have been translated for use in the islands.

#### Malaysia

Locate the center of the work in Malaysia.

What work is being done in Singapore, Sumatra, Java, and the Philippine Islands?

#### Notes

Much land remains to be possessed. Nothing has been done for Celebes. Borneo, which is as large as the combined area of France and Italy, has received only a few Dutch publications. New Guinea and other islands are just being entered.

NATIVES OF THE SOUTH SEA ISLANDS: Although the inhabitants of the oceanic regions seem to be related, and their language has similar idiomatic expressions, the marked contrast in their physical appearance indicates a great diversity of origin. Madagascar forms a little world of its own. The Eastern Archipelago and the Philippine Islands are mostly inhabited by Malays. Malanesia indicates the black population of these islands. The islands from Hawaii to New Zealand constitute the watery domain of the brown race.

In 1788 England formed a penal colony at Fort Jackson, which served as a nucleus for the colony of New South Wales. The last convict vessel arrived in Australia in 1868. About seventy thousand convicts were landed in Australia, and almost as many more in Tasmania.

### Nor love thy life, nor hate; but what thou livest live well; how long or short permit to Heaven.— Milton.

#### Try Again

#### (Concluded from page eleven)

Begin now; preliminaries are but waste of time. Use the fragments of your leisure,— it is the quarter hours and the half hours which are so likely to elude our grasp, or to be cast aside as mere odds and ends; yet these fragments possess almost unlimited capabilities,— and thereby add something to your development every day. One step, repeated often enough, will carry you to the goal.

The year is fast speeding on its way. Spring-time has already begun to smile upon the world, and summer and autumn will swiftly follow. Bird, beast, and flower, field and orchard, will duly fulfil the purpose of their being — will-render service to man and praise to their Creator. Shall your life, so immeasurably higher than theirs, miss the true object of its existence? Not only the course of nature, but the mighty changes of the great world of humanity around us, seem to echo the words of the inspired King of Israel: "Whatsoever thy hand findeth to do, *do it with thy might.*" Let us not add another to the moral failures of nineteen hundred and eight, but let body, mind, and soul live for the purpose of glorifying him who formed us for his service and praise.

> "Shall this life of mine be wasted? Shall this vineyard lie untilled? Shall true joy pass by untasted, And this soul remain unfilled? Shall the God-given hours be scattered Like the leaves upon the plain? Shall the blossoms die unwatered By the drops of heavenly rain?

"No, I was not born to trifle Life away in dreams or sin! No, I must not, dare not stifle Longings such as these within! Softly moving, upward, onward, Let my soul in faith be borne; Calmly gazing skyward, sunward, Let my eye unshrinking turn!"

ERNEST LLOYD.

#### Knowing God

It is the privilege of the youth to have an education in the things of God. God loves them, and he will give to them a rich experience if they will deny self for Christ's sake, if they will depart from sin, and serve the Lord with full purpose of heart. By giving up worldly pleasure, by ceasing to serve self, and learning to serve the Lord, they can give to the world one of the most striking evidences that God is working through his church on the earth.

God is giving to the children and youth many opportunities of knowing his will, and of learning how to do that will. In the Sabbath-school, in the services of the church, through the study of his Word in the home and in the school, he is constantly providing ways by which they may learn what is his purpose for the youth who accept him. By an earnest study of the Word of God, dear youth, you may learn to distinguish between right and wrong, between him that serveth God and him that serveth him not. If you will put away your novel and romance, and with simplicity of heart search the Scriptures, the Lord will impress your mind with his truth, and will make you a blessing to others. You will see the converting power of God come into the church. A faithful study of the story of Daniel and his three friends will teach the principles that underlie a strong, true character. These young men had first learned to serve God in their homes. They had there learned the meaning of true religion and what God would do for them if they remained loyal to him. When they were carried to the court of Babylon, they determined to yield up life itself rather than be untrue to God.

A severe test came to three of these youth when Nebuchadnezzar issued a proclamation, calling upon all the officers of the kingdom to assemble at the dedication of the great image, and at the sound of the musical instruments, to bow down and worship it. Should any fail of doing this, they were immediately to be cast into the midst of a burning fiery furnace. The worship of this image had been brought about by the wise men of Babylon in order to make the Hebrew youth join in their idolatrous worship. They were beautiful singers, and the Chaldean wanted them to forget their God, and accept the worship of the Babylonian idols.

The appointed day came, and at the sound of the music, the vast company that had assembled at the king's command "fell down and worshiped the golden image." But these faithful young men would not bow down.

When the men of Babylon saw that the youth would not join in the songs or bend the knee, they went to Nebuchadnezzar, saying, "O king, live forever. . . . There are certain Jews whom thou hast set over the affairs of the province of Babylon, Shadrach, Meshach, and Abednego: these men, O king, have not regarded thee: they serve not thy gods, nor worship the golden image which thou hast set up."

The king was filled with rage, and commanded that the men be brought before him. "Is it true," he inquired, "do not ye serve my gods, nor worship the golden image which I have set up?" Pointing to the fiery furnace, he reminded them of the punishment that would be theirs if they refused to obey his will.

The king decided to give them a second trial. "If ye be ready," he said, " that at what time ye hear the sound of the cornet, flute, harp, sackbut, psaltery, and dulcimer, and all kinds of music, ye fall down and worship the image which I have made, well: but if ye worship not, ye shall be cast the same hour into the midst of a burning fiery furnace." Then, with hand stretched upward in defiance, he asked, " And who is that God that shall deliver you out of my hands?"

The fearless youth replied, "O Nebuchadnezzar, we are not careful to answer thee in this matter. If it be so, our God whom we serve is able to deliver us from the burning fiery furnace, . . . but if not, be it known unto thee, O king, that we will not serve thy gods, nor worship the golden image which thou hast set up."

In vain were the king's threats. He could not turn these noble men from their allegiance to the great Ruler of nations. When opportunity was again given them to yield to the king's decree, and at the sound of the music the great men and officers of the kingdom bowed in worship before the image, the three Hebrews stood erect; they would not dishonor God by engaging in idol worship. They had been obedient to the laws of Babylon so far as these did not conflict with the claims of God; but they would not be swayed a hair's breadth from the duty they owed their Creator.

Then the king commanded the furnace to be heated seven times hotter than it was wont to be heated; and (Concluded on page eight)



#### III — The Twelve Spies (April 18)

LESSON SCRIPTURE: Num. 13: 17-33; 14.

MEMORY VERSE: "The Lord is merciful and gracious, slow to anger, and plenteous in mercy." Ps. 103:8.

#### Review

For what food did the people of Israel murmur soon after leaving Mount Sinai? How were the people supplied with flesh to eat? How was their sin of murmuring punished?

#### Lesson Story

I. Eleven days after leaving Mount Sinai, the children of Israel came to Kadesh-barnea, near the southern border of the land of Canaan. Here the people came to Moses and asked him to send men to look at the land. Moses asked counsel of the Lord, and the Lord told him to send twelve men, one for each tribe, to search out the land of Canaan.

2. Before these men started, Moses said to them: "See the land, what it is; and the people that dwelleth therein, whether they be strong or weak, few or many; and what the land is that they dwell in, whether it be good or bad; and what cities they be that they dwell in, whether in tents, or in strongholds; and what the land is, whether it be fat or lean, whether there be wood therein, or not. And be ye of good courage, and bring of the fruit of the land."

3. So the twelve spies searched out the land of Canaan. "Now the time was the time of the first ripe grapes." "And they came unto the brook of Eshcol, and cut down from thence a branch with one cluster of grapes, and they bare it between two upon a staff; and they brought of the pomegranates, and of the figs."

4. After forty days the spies returned, and showed Moses and all the people the fruit they had brought with them. "And they told him, and said, We came unto the land whither thou sentest us, and surely it floweth with milk and honey; and this is the fruit of it. Nevertheless the people be strong that dwell in the land, and the cities are walled, and very great: and moreover we saw the children of Anak there."

5. "And Caleb stilled the people before Moses, and said, Let us go up at once, and possess it; for we are well able to overcome it. But the men that went up with him said, We be not able to go up against the people; for they are stronger than we."

6. But the people would not listen to Caleb, choosing to believe the evil report. All that night they wept. "And all the children of Israel murmured against Moses and against Aaron: and the whole congregation said unto them, Would God that we had died in the land of Egypt! or would God we had died in this wilderness! . . And they said one to another, Let us make a captain, and let us return into Egypt."

7. When they heard these words, Moses and Aaron fell on their faces; and Caleb and Joshua, the faithful spies, rent their clothes. "And they spake unto all the company of the children of Israel, saying, The land which we passed through to search it, is an exceeding good land. If the Lord delight in us, then he will bring us into this land, and give it us; a land which

floweth with milk and honey. Only rebel not ye against the Lord, neither fear ye the people of the land; for they are bread for us: their defense is departed from them, and the Lord is with us: fear them not."

8. The people were too angry to listen. They were even ready to stone Caleb and Joshua. But they were not allowed to harm these faithful men. The glory of the Lord suddenly appeared in the tabernacle, and when the people saw it, the stones fell from their hands.

9. "And the Lord said unto Moses, How long will this people provoke me? . . . I will smite them with the pestilence, and disinherit them, and will make of thee a greater nation and mightier than they."

10. But Moses loved Israel, and he prayed God to spare them. "Pardon, I beseech thee, the iniquity of this people according unto the greatness of thy mercy, and as thou hast forgiven this people, from Egypt even until now."

11. "And the Lord said, I have pardoned according to thy word."

12. But this great sin could not go unpunished. In their anger the people had said, "Would God we had died in the wilderness!" Now the Lord said, "As ye have spoken in mine ears, so will I do to you: your carcasses shall fall in this wilderness; and all that were numbered of you, according to your whole number, from twenty years old and upward, which have murmured against me. . . But your little ones, which ye said should be a prey, them will I bring in, and they shall know the land which ye have despised." Caleb and Joshua, the two faithful spies, would also have a part in the land of Canaan. The ten spies who brought an evil report of the land died by the plague before the Lord.

13. When the people of Israel heard these things, they mourned greatly. They at once said, "We have sinned." But instead of now obeying God's command, and turning back into the wilderness, they decided to go and fight the Canaanites. Moses warned them not to go. "Go not up," he said, "for the Lord is not among you."

14. But the men of Israel would not listen to Moses. They went up into a hill to fight the Amalekites. "Nevertheless the ark of the covenant of the Lord, and Moses, departed not out of the camp." Their enemies smote the children of Israel, and they were driven back into the wilderness.

#### Questions

I. To what place did the people of Israel come eleven days after leaving Sinai? What did they ask Moses to do? See Deut. I:22. What did the Lord tell Moses?

2. Before these twelve men started on their journey, what did Moses tell them to notice especially? What kind of courage did he tell them to have? What were they to bring back with them?

3. What time of year was it when the spies went into the land of Canaan? What did they find near a certain brook? How was it necessary to carry this great cluster of grapes? What else did they bring with them?

4. After how many days did the spies return? To whom did they show the fruit? What did they tell Moses about the land? What did they say about the people and their cities?

5. What did Caleb do? What did he say to the people?

6. Which report did the people choose to believe?

What did they do all that night? Against whom did they murmur? What did they wish had become of them? What did they plan to do?

7. What did Moses and Aaron do when they heard these wicked words? How did Caleb and Joshua show their grief? What did they again say about the land of Canaan? Who could bring them safely into it? What did they warn the people not to do?

8. Being angered by what Caleb and Joshua said, what were the people ready to do? What prevented the carrying out of their wicked purpose?

9. What did the Lord say to Moses? What did he say he would do to the people? What would he make of Moses?

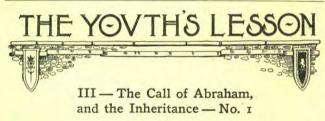
10. What did Moses then do? In what beautiful words did he plead with God to spare his people?

11. How was Moses' prayer answered?

12. In their anger what wicked thing had the people wished? What did the Lord now say he would do to them? To whom did the Lord say he would give the land of Canaan? What became of the ten spies who brought an evil report?

13. What did the people do when they heard these things? What did they say? What did they want to do then? What warning did Moses give them?

14. How did they regard this warning? What did they do? How might they have known that the Lord was not with them? What was the result?



#### (April 18)

MEMORY VERSE: "For what saith the scripture? Abraham believed God, and it was counted unto him for righteousness." Rom. 4:3.

#### Questions

I. From what was Abraham called to separate himself? Gen. 12: I.

2. What was offered to him in place of these things? Same verse.

3. What did God promise to make of this one man? Verse 2.

4. What would God's blessing do for him? Same verse.

5. How wide-spread would be the benefits of the blessing promised to Abraham? Verse 3.

6. What inspired comment upon this promise shows that it was the preaching of the gospel of righteousness by faith? Gal. 3:8.

7. How did Abraham respond to this instruction from the Lord? Gen. 12:4.

8. To what country did the Lord direct Abraham? Verse 5.

9. What promise did Abraham receive from the Lord after entering Canaan? Verse 7.

10. What reference did Abraham afterward make to this promised seed? Gen. 15:3.

11. What did the Lord say to Abraham about the promise? Verse 4.

12. What comparison was used to indicate the number of Abraham's seed? Verse 5.

13. How did the Lord regard Abraham's faith? Verse 6. 14. What was the ground of Abraham's confidence in God? Rom. 4:20, 21.

15. What is the explanation of Abraham's obedience to the call of God? Heb. 11:8.

16. How was it demonstrated that Abraham exercised a genuine faith in the promises of God? Heb. 11:17, 18.

17. How much power did his faith see in God's promises? Verse 19.

18. How did Abraham become righteous in the sight of God? Rom. 4:3.

19. How is the same fact again expressed? Rom. 4:21, 22.

20. Of what benefit may Abraham's experience be to us? Verses 23-25.

#### Notes

"After the dispersion from Babel, idolatry again became well-nigh universal, and the Lord finally left the hardened transgressors to follow their evil ways, while he chose Abraham, of the line of Shem, and made him the keeper of his law for future generations. . . .

"The message of God came to Abraham, 'Get thee out of thy country, and from thy kindred, and from thy father's house, unto a land that I will show thee.' In order that God might qualify him for his great work, as the keeper of the sacred oracles, Abraham must be separated from the associations of his early life."

It is plain that the call of Abraham and his experience constituted a message of righteousness by faith to the world. It was a divine call to reformation of character,- from the self-life to the life of faith revealed in implicit obedience to God. Like Noah, Abraham was a preacher of righteousness by faith. As Noah's righteousness was the kind which manifested itself in following the Lord fully, so Abraham's righteousness was testified to by his obedience. "By faith Abraham, when he was called, obeyed to go out." Heb. 11:8, A. R. V. These same principles are vital in the threefold message of to-day. A people is now being called out from the world to receive the inheritance, and as their title to the heavenly country they must possess a righteousness by faith such as Abraham revealed in his life of obedience to the commandments of God. The gospel preached by Noah and Abraham was the same as is being proclaimed to the world now, but in each case it is adapted to the demands of the time. In every great gospel movement, the preachers must learn from God through his Word, how to apply the old-new gospel to the special needs of the hour.

#### Royal Relationship

"IT makes such a difference," said an orphan girl, since I have been adopted by a lady like Mrs., I always feel, wherever I am, that, in my words and actions and appearance, I must be a credit to her."

The young girl's sense of responsibility expresses what every Christian should feel. Since we are sons and daughters of the King, should we not at all times and in all places be careful to be "a credit" to him, as the girl put it? We surely would not be so thoughtless, so tactless, or so graceless as we sometimes are if we remembered our royal relationship. It is only by dwelling constantly in Christ's presence, by walking ever at his side, that the beauty of his life becomes part of our very selves, so that the relationship grows evident to all.— *East and West*.

## The Youth's Instructor

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Entered as second-class matter, August 14, 1903, at the postoffice at Washington D. C., under the act of Congress of March 3, 1870.

#### Took the Silver as Souvenirs

Five hundred students of a university in Montreal were temporarily placed under arrest at Ottawa by city detectives after leaving Russell Hotel, where they had been the guests of the Dominion minister of marine. The reason for the arrest was the disappearance of the hotel's silverware simultaneously with the departure of the students. Lawlessness and discourtesy are to be deplored in a student body as well as in the individual, and the taking of articles for souvenirs that were in no wise intended for souvenirs is nothing but thieving, and is counted as such by the "Judge of all the earth."

#### The First to Violate the Law

THE first man convicted in the United States of violating the Pure Food Law is a resident of the District of Columbia. He has been compounding and selling a so-called headache remedy, and advertising it as containing no injurious substance. Analysis showed that every ingredient was either poisonous or harmful. It contained more than twenty-four per cent of alcohol, besides several poisonous chemicals; and two million bottles of this deleterious substance have been bought by the American people.

The penalty for disobeying the Pure Food Law is a fine of two hundred dollars or six months imprisonment, or both. It is expected that the first violator will be sentenced to six months' imprisonment.

#### The Unemployed

THE trade-unions of New York City reported for the month of December that thirty-four per cent of their men were idle; and since they do not count a man idle so long as he can get two days' work a week, and do not aid him if he gets work one day a week, one can see that the situation is serious.

The editor of the *Independent* says: "From organizations engaged in relieving destitution, the appeals to the public for aid are more urgent than we remember them to have been for a generation. Individuals who know the situation well privately remark that there has been no such distress in New York City for at least thirty-five years."

Almost every large city of the country can give a similar report. Washington, the capital of our country, has been a Mecca for many of the unemployed of other cities, who came hoping that the government could give them work.

In view of such conditions, it seems marvelous that our canvassers everywhere are having unusual success, some even reporting that they are selling many more books than before the panic. Now is the time to work. We can not tell how long these favorable conditions will continue.

#### The Industrial Home for the Jews

ELDER F. C. GILBERT has established in the beautiful town of Concord, Massachusetts, an Industrial Home and Training-school for the Jews. The Home is ideally adapted for the work, and a capable business man, Brother I. H. Tiney, has been secured to take charge of it. The Home cost \$10,000. Elder Gilbert has already raised in cash and pledges \$6,500 of the amount. There remains \$3,500 to be raised before the first of April. Our people are showing by their gifts that they believe the time has come to give the last gospel message to the Jews.

The superintendent, Brother Tiney, in speaking of the first Jew to take advantage of the opportunities offered by the Home, says: —

"Our first Jew came here January 7, a bright young man eighteen years of age. I think he is one of the most earnest Christians I have ever met. It would do you good to hear him express his wholehearted love for Jesus, who died for his sins. All his spare moments are occupied in studying the Scriptures. He certainly bids fair to make an able worker. I believe the Lord has many more among the lost sheep of the house of Israel. May we by our prayers and our means help to carry forward this work, and hasten the finishing of the mystery of God."

#### The Haytian Revolution

THE trouble in Hayti is serious, as the following note from the Washington *Times* indicates: —

"Official dispatches received at the State Department confirm press dispatches of the summary execution by government officials in Hayti of twelve or more of the alleged conspirators in the recent revolution.

"The dispatch says that government officials broke open several houses early in the morning, and took out between ten and fifteen of the alleged conspirators and executed them. Great excitement prevails in the republic, according to dispatches, but no serious trouble is expected.

"State Department officials have no fear for the safety of Americans or American interests. There is at present no American war vessel in Haytian waters, but there are five vessels in the immediate vicinity that could be dispatched at once in case they were needed.

"An order was issued to-day, according to dispatches at the department, providing for the embarkation of refugees in foreign consulates."

We should remember in prayer our missionaries who are located in Hayti, that God's protection may be over them.

It is said that "Lincoln not only had a command of words, but was a commander of words. His words were his servants, and were well chosen."