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BEAUTIES OF SOUTHERN CALIFORNIA

HERE is no monotony in the scenery of Southern California. Looking in any direction but coastward, one sees "hills peep o'er hills, and Alps on Alps arise." First the green carpeted elevations in the valley are seen; then the foothills,

dotted with orchards and vineyards; beyond these are higher hills, bearing the sturdy oak; and in the background rise the granite cliffs of the Sierra Madre and San Bernardino moun-

tains, whose giant pines appear as underbrush, or whose snowcapped peaks look like fleecy clouds. Mt. Lowe, Mt. Wilson, Markham's Peak, and Mt. San Gabriel stand side by side to the northeast, while still farther eastward tower the giants of the range, - San Jacinto, San Gorgonio, and San Antonio, familiarly known as "Old Baldy." To the inexperienced observer the mountains look like great barren hills: but on nearing them the verdure appears; and what from a distance seemed but grim shadows, open into deep, precipitous cañons. From the ravines gush the cool mountain streams, which ripple down the gorges until lost to sight.

A remarkable engineering feat was the construction of the cable and electric road that winds its way up the Sierra Madre range into the pine forests at an elevation of five thousand feet. On a winter's day one may leave Altadena fresh with the bloom of roses, and in less than an hour be roaming in snow-covered pine forests.

As I write, I hear the buzz of the electric cars loaded with merry excursionists for the summit. The circular reads, "From Pasadena to Rubio Cañon, Echo Mountain, Ye Alpine Tavern, including all points on Mt. Lowe railway, and return the same day." Let us, in fancy, join them. We take the electric car at Pasadena, and enjoy a lovely spin, through fragrant orange groves and peach orchards in full bloom, to Altadena; here we change cars, and continue our ride, past grain fields and through acres of California poppies, to Rubio Cañon, where the great inclined railway begins. Shall we take that car with no conductor nor gripman, when directly above us we see another ready to descend on the same track? But the car is waiting; so, gaining courage from those less timid, we are soon seated, and moving slowly up a sixty-two-per-cent grade,sixty-two feet up in the air for every hundred feet forward. I hear one whisper, "Are you

frightened?" another, "It seems so sultry;" while others, enraptured with the view before them, are quite unconscious of the change in the atmosphere. Half-way up we reach a switch, and the descending car side-tracks, politely giving us the right of way.

As we reach Echo Mountain, we look about to see where we are; for it seems like a dream. Below is the fertile San Gabriel Valley; nestling among the trees we spy Pasadena; farther away is Los Angeles; and still farther, where sea and sky meet, are the islands, apparently almost submerged. Echo Mountain House, a familiar waymark, was burned only a few weeks ago, and preparations are now being made to replace

"THE TIME OF THE SINGING OF BIRDS"

No. 19

ONCE more we delight in days sweetened with the perfume of violets and lilies of the valley and filled with the music of bird songs. "For, lo, the winter is past; the rain is over and gone; the flowers appear on the earth; the time of the singing of birds is come, and the voice of the dove is heard in our land." The awakening of the brown earth into life and beauty at this season brings to the thoughtful mind remembrances of bygone springtimes —and surely memory holds no fairer pictures.

I remember an evening in April long ago. The fragrance of blossoming orchards stirred



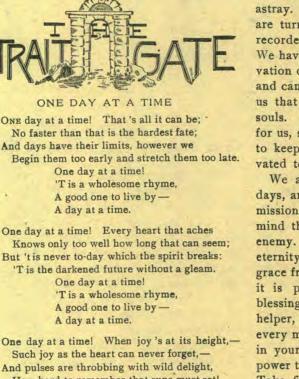
it. We stop only a moment at the ruins, for again our car awaits us. This time we take the electric car, which winds out past the Observatory, around the Circular Bridge, up to a sylvan nook; and there, among the pine trees of this elevated forest, is Ye Alpine Tavern, with doors wide open to welcome us. Glancing above the large colonial fireplace that faces us as we enter, we hesitate a moment as we read the motto, "Ye Ornaments of a House are Ye Guests Who Frequent It," lest there be some exceptions. Reluctantly we leave; but we must make our way to the summit on burros, and return to meet the home-bound car. On the heights we remain but a short time to bid "Old Sol" good night as he sinks out of sight in the wide ocean. As we return, all is wrapped in darkness, broken only by the myriad electric lights below, which seem but the reflection of the starry heavens above. Even in imagination the trip has been a pleasant one.

MRS. KATHLEEN WAGNER-GILMORE.

through the twilight falling gently over the gray old homestead. The garden walks were just touched with green, and as I wandered down a shaded path, a fragrant, blossom-laden apple bough brushed my head. Down by the old stile in the roadside hedge, where the honeysuckle arched over, I paused. A startled rabbit scampered away in the twilight, and plunged into a tangle of bloom; a plum tree sprinkled snowy fragrance on my head; while near at hand the pink sea of a peach orchard slept as calmly as if the winds of spring had never tossed it into waves of bloom, and scattered its pink foam beneath the spreading branches.

Again: I lingered in the shadow of a few grand old pines, that gently stirred against the evening sky. What delight there was in that exquisite hour of that exquisite season! The evening was a poet's evening, the hour a poet's hour, fit to inspire a dull day-laborer to immortal song,— an hour to make the hardened criminal look through his prison bars, and long for his lost purity,-an hour to make even the veriest infidel bow in awe and reverence before the glory of the word and works of God.

MINNIE ROSILLA STEVENS.



And pulses are throbbing with wild delight, How hard to remember that suns must set! One day at a time! 'T is a wholesome rhyme, A good one to live by -A day at a time.

One day at a time - but a single day, Whatever its load, whatever its length; And there 's a bit of precious Scripture to say, That according to each shall be our strength. One day at a time! 'T is a wholesome rhyme, A good one to live by -A day at a time - Helen Hunt Jackson.

THE STUDENT'S PRIVILEGES AND RESPONSIBILITIES

II

WE must put to the stretch every spiritual nerve and muscle if we would stand as Daniel stood. God spoke of Daniel as a man greatly beloved. Would we not rejoice if this could be said of us? Strive, then, to be like Daniel, affable, kind, and forbearing. Show your love for those who are striving to help you form right characters. Do all you can to help yourselves, that your intelligence may reach the highest point of excellence. God does not desire you to remain novices. He needs in his work everything that you can gain here in the lines of mental culture and clear discernment. He desires to have you reach the very highest round of the ladder, and then step off it into the kingdom of God.

The Lord desires you to understand the position you occupy as sons and daughters of the Most High, children of the heavenly King. He longs to have you live in close connection humility. Great men are truly humble men. with him, so that your words may educate those They have some noble purpose ahead, and around you. Cut away from everything frivolous. Do not think that you must indulge in this pleasure and that pleasure. Determine that you will be on the Lord's side from the beginning of the term till its close. If you will stand under the blood-stained banner of Prince Immanuel, faithfully doing his service, you will never yield to temptation; for One will stand by your side who is able to keep you from falling. But God can not do this work for you unless you give him all the powers of heart and mind. Angels are watching the development of character in the school. God is weighing

moral worth. He longs to see every mind used aright. He has given you the precious talent of reason, and he calls upon you to use it in the right way. He desires you to feel that you can and will acquire greater and still greater strength.

Take heed to yourselves, lest you lead others astray. If by your course of action, others are turned aside from the right way, this is recorded against you in the books of heaven. We have one great object before us - the salvation of souls. Christ left the royal courts, and came to this earth in human flesh, to show us that we may co-operate with him to save souls. After he has made this great sacrifice for us, should we deem any sacrifice too great to keep our passions, our inherited and cultivated tendencies to wrong, under control?

We are living amid the perils of the last days, and we need to receive an education as missionaries. Let each student make up his mind that he will not stand in the army of the enemy. We are working for time and for eternity, and we expect to receive light and grace from the Lord. Strive to reach all that it is possible for you to reach with the blessing of God. When you have such a helper, when angels of God are watching your every movement, when all heaven is interested in your welfare, will you not do all in your power to help yourselves? Pray for yourselves. Take firm hold of the arm of divine power, determining, as did Daniel, not to swerve from any duty. Harness your habits. Put on the bit and bridle. Use all your intelligence in God's service.

"If ye then be risen with Christ," the apostle writes, "seek those things which are above, where Christ sitteth on the right hand of God. Set your affection on things above, not on things on the earth. For ye are dead, and your life is hid with Christ in God. When Christ, who is our life, shall appear, then shall ye also appear with him in glory. . . . And above all these things put on charity, which is the bond of perfectness. And let the peace of God rule in your hearts. . . . Let the word of Christ dwell in you richly in all wisdom; . and whatsoever ye do in word or deed, do all in the name of the Lord Jesus, giving thanks to God and the Father by him."

MRS. E. G. WHITE.

BEHOLDING THE WORKS

"LET your light so shine before men, that they may see your good works, and glorify your Father which is in heaven."

We are known by our works. Our works constitute our light. "Let your light so shine" is equivalent to saying, "Let your works so shine." Our works outlast our lives. You will also notice that the attention of men is directed to the works, rather than to the person: the individual is in a measure lost sight of by those who behold his works.

This is a valuable point in greatness and lose sight of themselves in the working out of that purpose. Not to do some great thing to get a great name, but to keep filling the life record with good deeds, is their object, because good deeds possess the seed of true greatness in themselves. Eternity is given for the purpose of permitting these good seeds of right-doing to grow in the lives of others. Jesus went about "doing good;" and God raised him to life so he could continue "doing good."

Notice, it is the works we do that are seen by others,-not the things we plan to do, or the

many things begun, but never finished. "All thy works shall praise thee, O Lord." His works are perfect, and finished. "Well done," is said to those who have done something,begun it well, and finished it.

We are exhorted to turn all our works over to the Lord. "Commit thy works unto the Lord, and thy thoughts shall be established." God will examine them. He says, "I know thy works." Again, of some he says, "Be watchful, and strengthen the things which remain: . . . for I have not found thy works perfect before God."

The importance of what we do, how we do it, and the motive actuating us in the doing of it, not only determines our usefulness in this life, but it also determines our eternal destiny. "For we must all appear before the judgment seat of Christ; that every one may receive the things done in his body, according to that he hath done, whether it be good or bad." What is the character of the works that others behold in your life? T. E. BOWEN.

TENDERNESS WINS

It is useless to try to tell people that God loves them, unless we show them that we love them. "No one," says an exchange, "thinks of defending himself on the side of tenderness, for the assault is almost never made there. This is our postern gate, and we may drive in and take the fort.

""Will you send these goods up to-day?' asked a lady of a shopgirl of whom she had made some purchases, and whose spiritual history she well knew.

" 'Yes, ma'am.'

"" Are you sure, my dear, that you will not wear them out first?'

""Why, what do you mean, madam? You do not know this house when you talk that way!' Her guards were all up instantly, and her spirit was up, too.

"But, my dear,' went on the lady, 'Jesus bought you, and paid for you with his own precious blood, and here you are wearing yourself out before you take yourself to him.'

"That was the battering-ram against the postern gate. It was driven in. The young girl sobbed aloud: 'No one has spoken to me like that since mother died.'

"This world is full of people out of whose experience tenderness died when mother was laid under the sod. They were children then, they are men and women now. They know by bitter experience that this is no motherhearted world. They are dying for a touch of the mother-heart."

ALPHABETIC SCRIPTURES

Ask, and it shall be given you. Matt. 7:7.

Be not overcome of evil. Rom. 12:21.

- Come unto me, all ye that labor and are heavy laden, and I will give you rest. Matt. 11:28.
- Dearly beloved, avenge not yourselves, but rather give place unto wrath. Rom. 12:19.
- Except a man be born again, he can not see the kingdom of God. John 3:3.
- Fear God, and keep his commandments. Eccl. 12:13.
- God is a Spirit: and they that worship him must worship him in spirit and in truth. John 4:24.
- Herein is love, not that we loved God, but that he loved us. I John 4:10.

If it be possible, as much as lieth in you, live peaceably with all men. Rom. 12:18.

Jesus said unto them, I am the bread of life. John 6:35.

Keep thy heart with all diligence; for out of it are the issues of life. Prov. 4:23.

Let not your heart be troubled: ye believe in God, believe also in me. John 14:1. My tongue shall speak thy word. Ps. 119:172. Now ye are clean through the word which I

have spoken unto you. John 15:3. Open thou mine eyes, that I may behold wondrous things out of thy law. Ps. 119:

18. Peace I leave with you. My peace I give unto

you. John 14:27. Quicken me after thy loving kindness. Ps.

119:88. Rejoice in the Lord, ye righteous. Ps. 97:12. Serve the Lord with gladness. Ps. 100:2.

The works of the Lord are great. Ps. 111:2.

- Unless the Lord had been my help, my soul had almost dwelt in silence. Ps. 94:17. Vow, and pay unto the Lord your God. Ps.
- 76:11.

Whoso mocketh the poor reproacheth his

Maker. Prov. 17:5. Exalt the Lord our God. Ps. 99:9.

Ye that love the Lord, hate evil. Ps. 97:10. Zion heard, and was glad. Ps. 97:8.

ARRANGED BY EVA F. DICKSON, Aged thirteen years.

THE CRITICAL HABIT

"Do NOT drift into the critical habit," wrote Ruth Ashmore. "Have an opinion, and a sensible one, about everything; but when you come to judge people, remember that you see very little of what they really are, unless you winter and summer with them. Find the kindly, lovable nature of the man who knows little of books; look for the beautiful selfsacrifice made daily by some woman who knows nothing about pictures; and teach yourself, day in and day out, to look for the best in everything. It is the everyday joys and sorrows, my dear girl, that go to make up life. It is not the one great sorrow, nor the one intense joy, that constitutes living. It is the accumulation of the little joys and sorrows. Do not be critical of the little faults, and do be quick to find the little virtues and to praise them. So much that is good in people dies for want of encouragement. As I said before, Have an opinion, and a well-thought-out one, about everything that comes into your life; but do not have too many opinions about people. Their hearts are not open books; and as you must be judged yourself some day, give them the kindest judgment now."

A WORSE THING

SHALL I give you a parable? Once upon a time there was a man walking on the highway, and he fell. No doubt it was partly his own carelessness. He, however, insisted that it was an accident. But the trouble was, that when he was down, he stayed there, and spent all his time in telling everybody who would listen how it happened. Some shook their heads doubtfully, and that made him angry. Some sympathized with him, and that made him sad. At last there came a simple man who asked, "How long have you been here?" It was ten, twelve, fifteen years or more. The simple man shook his head. "I am sorry, very sorry."

"Yes," said he who was down, "it is a terrible thing to tumble down."

"That may be," said the simple man, "but there's something a thousand times worse." "What is that?"

"Why, not getting up again."-Mark Guy Pearse.



- TALKING IN THEIR SLEEP
- "You think I 'm dead," The apple tree said;
- "Because I have never a leaf to show; Because I stoop,
- And my branches droop,
- And the dull gray mosses over me grow! But I 'm all alive in trunk and shoot; The buds of May
- I fold away,-
- But I pity the withered grass at my root." "You think I 'm dead,"
- The quick grass said;
- "Because I have parted with stem and blade! But under the ground
- I am safe and sound, With the snow's thick blanket over me laid;
- I 'm all alive and 'ready' to shoot Should the spring of the year
- Come dancing here,-But I pity the flowers without branch or root."
- "You think I'm dead," A soft voice said;
- "Because not a branch or root I own! I never have died,
 - But close I hide
- In a plumy seed that the wind has sown; Patiently I wait through the long winter hours; You will see me again -I shall laugh at you then
- Out of the eyes of a hundred flowers." -Edith M. Thomas, in St. Nicholas.

11-DUTCHMAN'S BREECHES

THIS little plant is always dear to the heart of a child. The quaintly shaped blossoms are such a departure from the many other flowers appearing in early spring that we give them our special regard and attention. These blossoms serve to teach us that God loves variety, and that our distaste for uniformity and monotonous sameness is but an echo from the great heart of the Creator.

If you carefully pull this plant out of the ground, you will

observe that it grows from a scaly bulb, composed of grainlike tubers. The peculiarly shaped flowers grow in a raceme on a leafless flowerstem. The leaves grow on slender petioles from the rootstock. You will notice that the leaves are in sets of threes, and that each of these sets is made up of three tiny leaflets. This arrangement is called "thrice-compound."

The flowers are white, tipped with yellow. The plant is to be Dutchman's BREECHES found in the leaf Dicentra cucullaria. mold of thin woods. It blooms in April and May.

The bleeding-heart of our gardens is a near relative of this flower; but the flowers of the bleeding-heart are blood-red and white, spurred, and heart-shaped.

The early flowers of spring are almost wholly fragile and delicate, and this specimen is no exception to the rule. If the frail, withering flowers are types of the light, transient things of earth, surely in some of these spring flowers we have unceasing reminders of the fact that the grass withers, and the flower thereof falleth away; but let us not forget that the word of L. A. REED. our God abides forever.

HOUSE PLANTS IN SUMMER

WHAT to do with the house plants during the summer, is a perplexing question with many. To keep them in their pots at the windows is seldom convenient, nor are they then attractive in appearance, nor will they often remain in a healthy condition. To prepare a place for them outdoors, where they can be "stored" and looked after, is seldom possible for the amateur. To remove them from the pots, and plant them in the summer flower beds is objectionable, because the roots spread out beyond reasonable bounds; and in the fall, when the plants are lifted and potted, nearly all the "feeding roots" are bruised, torn, or destroyed. The result is that the vitality of the plant is so lowered by the shock, and the after-growth is so slow, that the winter is nearly passed before the plant begins to bloom. To set the pot in the flower bed is an unsatisfactory method (though preferable to removal from the pot), because it is not an easy matter to water the plant sufficiently to keep it in a healthy, growing condition, as the water will not filter through the pot from the surrounding soil in sufficient quantities for the necessities of the lower roots, and yet the surface soil will give the appearance of a depth of moisture. It is seldom that a plant in a plunged pot obtains water enough to keep all its feeding roots in health. What, then, can be done?

All will admit that the summer flower bed is the place for the majority of winter-blooming plants, provided the roots can receive sufficient food and water, and yet sustain no injury, and the growth of the plant remain unchecked when the transfer is again made to pots in the fall. This can be accomplished in a most satisfactory manner, and with little trouble or expense.

First make a list of the plants you intend to set out in the beds, and opposite the name of each, note the size pot that you intend the plant to occupy next winter. Be sure to keep this paper where it can be easily found when wanted. Next provide empty pots of all the sizes you intend to use in the fall for repotting,-one of each size. Count the number of plants that are to be placed in the flower beds, and those occupying pots six inches or less in diameter, multiply by two, larger ones in proportion. The sum total will be the number of roof shingles you will require. Procure these,-the longest you can find,-and saw in half, through the center. Split these halves into pieces not wider than two inches. You will then have pieces varying from one to two inches in width, and somewhat longer than the height of a seven-inch pot.

Now suppose you have a plant occupying a five-inch pot, and you intend to put it into a six-inch pot in the fall; mark its place in the flower bed on the list you have made, and carry the plant, with a six-inch empty pot and a handful of the split shingles, to the spot the plant

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is to occupy. Make a hole the depth and width of the six-inch empty pot, and place the pot into it, packing the dirt firmly around it. Carefully withdraw the empty pot, and drive the shingles in its place, giving them the exact slant of the pot, until their tops are from one to two inches below the level of the surface of the bed. If you have gravel or pebbles handy, throw in a small handful, or put a piece of wood on the bottom of the hole, to prevent the roots working down too deeply. Then put in the plant, and sift dirt around the edges to fill. Such an arrangement will allow the plant ample room for growth; the shingles will be out of the way of the rake or hoe in working among the flowers; all the needed moisture will percolate between the shingles; and the roots will be kept within proper bounds. When the plant is lifted in the fall, it will fit nicely into the pot selected, leaving a sufficient margin in which to pack fresh soil.

To lift the plant in the fall, run a trowel completely around the outside of the shingles, and on opposite sides throw off sufficient of the dirt to allow the placing of the hands half-way down the length of the shingles. Grasp the shingles firmly, spreading the hands over as many as possible, the hands being opposite each other (if the plant is large, first tie a string around the shingles, in about the center), and gently rock the plant north, south, east, west; then, pressing firmly and evenly, raise the whole slowly. When clear, lay on its side, carefully removing the upper shingles. Place the left hand where the removed shingles were, letting the fingers cover the bottom of the plant, and with the right hand carefully turn the plant over into the hand, and you have it ready and safe to repot.

Sometimes the shingles will be found driven too firmly into the ground to yield readily to the pressure of the hands. Never pull them out. Dig around them until you can get the end of a spade or trowel under them, and gently force them upward. Do this slowly and carefully, so that the fine roots lying against the inner surface will not be torn. If the whole operation is a success, the plant, if repotted and left for a few days in the hole it occupied in the bed, will never notice the change in any way. W. S. CHAPMAN.

CROCUS

THE crocus peeps through mossy heaps To don her snow-white bonnet; Then far and wide with modest pride She shakes the white plumes on it, And laughs with glee to think that she The earliest flower of spring[should be.

- Selected.

"LO, I AM WITH YOU ALWAY"

A BUSY woman entered her room hastily as twilight was falling, went directly to her desk, turned on the gas, and began to write. Page after page she wrote. The solitude became oppressive. She wheeled her chair around, and, with a shock of joyful surprise, looked squarely into the smiling face of her dearest friend, lying on the lounge by her side. "Why, I did n't know you were here!" she cried. "Why did n't you speak to me?"

"Because you were so busy. You did n't speak to me."

So with Jesus—here all the time. The room is full of him, always ready to greet us with a smile—but we are so busy! But when the solitude grows oppressive, we suddenly turn, and lo! he is at our side. We speak to him, and he speaks to us; and the soul's deepest yearnings are completely satisfied.—Selected.



THE SUNBEAM

Swim down its slanting stream.

A SLENDER morning shaft, it cut the gloom, And touched my eyes to see, as in a dream, A million rainbow motes athwart the room

God shine upon our days of common dust, And smite the eyes that Wont and Custom seal! Then shall the meanest mote of all, we trust, Its blues and reds reveal.

— Alice Lena Cole.

CORRECTING MISTAKES

MANY of the mistakes made by beginners in photography are fatal; but some can, in a measure, be corrected. Of course it is best to avoid mistakes; and if you learn from each spoiled negative how to avoid a similar failure in the future, you will soon be making negatives that will need no "doctoring." When you have made a failure, the most important thing is to learn the cause. The improvement of that particular negative is of secondary importance.

Over- and underexposure are among the most common causes of failure. I have already told you how to detect these mistakes during development; but if they escape your attention then, there is a still more simple way by which they may be recognized after the negative is dry. Hold a black cloth or paper behind the negative, and look at it by reflected light. If it shows a positive on the film side only, the negative has been undertimed. When only the glass side shows a positive, it has been overtimed. But if a positive can be seen on neither side or on both sides, the exposure has been about right.

If a plate is known to be undertimed before development begins, the normal developer should be diluted with an equal quantity of water. This will greatly lengthen the time of development; but it will soften the contrast, and bring out more detail in the shadows. Under this treatment an underexposure will come out better than when treated with normal developer; but, generally speaking, the mistake is a fatal one.

When the plate is known to be overtimed, the developer should be concentrated. Equal parts of our "standard" developing solution and water, with the addition of four drops of a ten-per-cent solution of bromide of potassium, or of a fifteen-per-cent solution of chloride of sodium (common salt), to each ounce of developer will compensate for a pretty bad overexposure. After an overtimed plate has been developed, it is past all hope of improvement.

When a negative is thin and weak, but full of detail in both high-lights and shadows, it is underdeveloped. This fault may be corrected by intensification. Intensifiers may be bought at any stock house, and some manufacturers send out intensifier formulas with their plates; but about the best one, and that most used, is the mercuric bath given below: —

Bichloride of mercury,	1		. 1 dram
Bromide of potassium,			1/2 ounce
Water, .		*	4 ounces

Mercury dissolves slowly, so it is best to keep this solution on hand. However, you should keep it out of the way; for bichloride of mercury is another name for corrosive sublimate,—a deadly poison. The negatives to be intensified should be placed in the miscellaneous tray, and the mercuric solution poured over them. A white deposit will at once begin to appear on the surface of the film. If the negatives require much intensification, they should be left in the solution until this action ceases. Then pour off the intensifier, and pour over the plates a few ounces of a ten-per-cent solution of sulphite of soda. This will blacken the white mercuric deposit, after which the plates may be washed and dried just as after fixing.

Sometimes a negative will be so dense that in all but a strong transmitted light it will appear quite black, even in the shadows. This is caused by overdevelopment, and may be corrected by reduction.

This solution also is poison, and the bottle should be so labeled. Light has a tendency to decompose this solution, so it is well to keep the bottle wrapped in black or dark-brown paper. To make a reducer, add one-half dram of this solution, and a lump of hypo. about twice the size of a pea, to eight ounces of water. Watch the plate closely, or you may get it too thin. When sufficiently reduced, remove the negative, and wash it as you would after fixing.

Sometimes you will see dark streaks radiating from one corner or edge of the plate, and extending across its entire surface. Such plates have been "light-struck," and nothing can be done to improve them. In some way a ray of light has reached the plate without coming through the lens at the time of exposure. The trouble is generally caused by a leaky plateholder.

When there is a leak in the plate-holder, so situated that diffused instead of direct light reaches the plate, it will "fog" the negative. Then the entire image will be veiled and indistinct, just as the subject would appear on a foggy day. An unsuitable developing light, or a developer containing too much alkali, may also cause fog.

"Pin holes" — little spots of clear glass are usually caused by specks of dust on the plate during exposure. To avoid them, the plate should be carefully dusted when the holders are loaded. Pin holes may be spotted out with some opaque water-color carried on a finepointed brush. If the spots are small, and you are deft-fingered, they may be lightly touched with pen and ink, but the water-color is better.

When a negative shows too much contrast, black high-lights and shadows of clear glass, the trouble may have been caused either by underexposure or by too many contrasting lights on your subject. When it is necessary to photograph anything in contrasting lights, it is advisable to overtime the plate, and develop with normal developer. This plan will reduce the contrast, and often yields good results where a normal exposure will fail.

In photography it is easier and better to avoid mistakes than to correct them. So in our Christian experience. If we make a mistake or commit a sin, it may be rectified or forgiven; but how much better not to sin! "My little children, these things write I unto you, that ye sin not. And if any man sin, we have an Advocate with the Father, Jesus Christ the righteous." Oh, wonderful love! A power has been provided to keep us from sin; but if we let go that power, and fall, an Advocate stands ready to plead our cause, and bear our sins himself. J. EDGAR Ross.

CIVILITY costs nothing and buys everything.

THE YOUTH'S INSTRUCTOR



5

MARCH, APRIL, MAY

'VE had a dream, O dear mama, and such a pretty one! -

saw a lively, red-cheeked lad, his blue eyes full of fun, Come, whistling and dancing, into a

And set to work right cheerily, with

and wisps of hay, and leaves,

harvest sheaves. He drove them all before his broom, so busily worked

he; And when he went, that littered room was clean as clean could be.

And then his little sister came, a winsome gray-

eyed girl. More quiet than her brother was, she did not

make things whirl; But, armed with mops and water-pails and

scrubbing-rags and brush, She washed things down till I could hear

the water foam and rush. With sleeves tucked to her elbows, and skirts up to her knees.

She splashed about in all that slop as happy as you please;

And when no other speck of dust the little girl could find,

She left the room all sweet and clean and rainbow-wreathed behind.

Then, oh! the darling little lass that, smiling, tripped along!

Her eyes were bright with goodness, and her lips were sweet with song.

Upon the bare, dull-colored floor a carpet green she spread,

Tacked down with yellow buttercups, and daisies white and red; A garland of young maple leaves she looped about the

room, And curtained all the windows with lace of apple-

bloom; The ceiling then she overspread with gold-embroid-

ered blue,-Now dress me, please, and I will go and see if it is

true.

ELIZABETH ROSSER.

THE BABY QUEEN

SHE was born, once on a time, in a palace swarming with busy folks - or anyway, some of them were busy, though I 'm sorry to say a few were very lazy indeed, and made the others do all the work.

She was such a queer little baby, lying very still in her fuzzy white dress. Her mother was altogether too busy to take care of her and the other babies; for, you see, she had a great many tiny sisters and brothers.

If it had n't been for their many kind nurses, I am afraid they would never have grown up at all. But the nurses watched over them very tenderly and carefully, and fed them on bread and milk all day long.

They never had to wait for something to eat. The nurses fed them "between meals" and at all times, and so they grew ever so fast. Why, some of them doubled in size in only half a day !

I think the nurses must have loved this one special baby I am talking about more than the rest. Anyway, they soon began to give her better food than the other babies. She had rich "royal jelly" to eat; while they had only coarse yellow "bread," mixed with a tiny drop of honey

After all, the queerest thing about this queer little queen was what made her a queen - the royal food she ate! It was n't because she was first heir to the throne, but just and solely because she had "royal jelly" for dinner, and the other babies did n't! Who ever heard of any other queen who owed her crown to her dinner? She had a tiny room all to herself-and so

did most of the others, for that matter. It was a cozy little room with six walls, and the door was always open till the queen-baby was about nine days old. Then, after they had given her a big meal of "royal jelly," the nurses shut the door tight, and locked it. For twelve long days the baby lived all alone in her little locked-up room. Nobody came to see her, or took any notice of her.

At first she seemed to enjoy being alone, and never thought of wondering why the nurses did not bring her some dinner



"I'VE HAD A DREAM"

or supper. To tell the truth, she was very busy growing, and putting on a suit of beau- . tiful new clothes. As the door was locked so tight, nobody could look in to see how the new suit was made, or how the wee baby put it on all by herself.

By and by, when the dress was all donned, the royal baby-though she was n't much of a baby then — concluded she did not care to live alone any longer; besides, she was hungry. So she began to turn slowly round and round, and cut a small, round hole in her door with her strong little "teeth"-for she had cut all her teeth by that time! When the circle was nearly completed-pop! the bit of a round door flew open like the lid of a coffee-pot! The little queen poked out her head, and surveyed things with a good deal of curiosity.

I wonder what she thought of it all, - the long rows of little six-walled rooms; the crowds of busy workers bustling about, bringing in new supplies of food, and piling them into the rooms; and the lazy loungers here and there, doing nothing at all.

It must have surprised her; but if it did, she did not let any one know it: she was too dignified for that. Indeed, she was a very quiet

little lady, and only called out something that sounded like "zeep, zeep, zeep," once in a

while. She popped her head down again, and went back

into her own little room to rest, and think about it, maybe.

After that she peeped out of the door several times, and finally boldly walked out.

She was too hungry just then to wait for ceremony; so she walked about among the little food-rooms, helping herself.

Nobody objected at all. They all knew it was the young queen, and of course the queen could do as she pleased. From that time she was perfectly at home in the busy palace, and began her reign with a good deal of quiet dignity. I wish I could say she was always quiet and good, but she had one great fault,- she was very jealous of the other young queens; and - oh dear! I'm afraid she had a fight with them, and drove them all away.

Have n't you guessed who the little queen was? Why, she is alive this minute, and lives in the tiny white house under the apple-tree in our own back yard .- Selected.

THE NAUGHTY PARROT

ONCE there was a little girl who spent the summer days

With sheep and cows and pigeons, and horses out to graze,

And "other gentle comrades. They all had pleasant ways,

Except a horrid parrot with a very brilliant head,

Who never made polite remarks, but always moaned, instead,

'Oh, ah, wah! Ah, hoop-bah! I - don't want to go to bed!'

Now all these other animals were very, very good:

They neighed or they brayed, or they crowed or purred or mooed; They barked or they bleated, or they quacked

or clucked or cooed, But still that hateful parrot, he drooped his

gaudy head, And with a twinkle in his eye he dolorously

said "Oh, ah, wah! Ah, hoop-bah! I-don't - want to go

to bed! "

- Youth's Companion.

WHAT GOD SAYS TO THE CHILDREN

OUR loving Heavenly Father never forgets the little ones. Here are some of the texts that have been written in his word especially for them: -

"Suffer the little children to come unto me, and forbid them not: for of such is the kingdom of God."

"Honor thy father and thy mother: that thy days may be long upon the land which the Lord thy God giveth thee."

"Children, obey your parents in the Lord; for this is right. Honor thy father and thy mother; which is the first commandment with promise; that it may be well with thee, and thou mayest live long on the earth."

"Remember now thy Creator in the days of thy youth, while the evil days come not, nor the years draw nigh, when thou shalt say, I have no pleasure in them."

"Even a child is known by his doings, whether his work be pure, and whether it be right."



littered room,

duster and with broom. There were strings and bits of paper

And scattered straws that had been lost from out the

THE YOUTH'S INSTRUCTOR



MAY STUDY OF THE FIELD PART III: MEXICO; ITS GROWTH AND DEVELOPMENT

(May 13-19)

1. Rapid Development of Mexico. - No country in the world has made such immense strides during the last ten years as has Mexico. A little more than twenty years ago it was centuries behind Europe. Until 1873, the chief, and almost the only, means for traveling was a few wagon-roads and bridle-paths. Of these a Mexican merchant writes: "The national and neighborhood highways do not merit the name. The principal road from Oaxaca to Costa Chica is a bridle-path; and in some parts it is so narrow that last year when I, being sick, had to be carried on a bed to Oaxaca, the servants who carried me had to abandon the road, and cross through the woods, as two men abreast could not walk in it. If the national roads are thus, one can imagine what the neighborhood roads might be."

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2. Agriculture. - One writer says that "the Mexicans have cultivated almost everything more than their soil; hence they have no system of agriculture." The plow is the same as that used two thousand years ago, - simply a wooden wedge, sometimes without a particle of iron; the yoke being lashed with rawhide thongs to the horns of the oxen that draw the , prehistoric implement. The ox is the only animal used in plowing, although the planter may have thousands of horses and mules. American plows are now being introduced to a considerable extent; but the Mexican peasant, on coming into possession of one, generally cuts off one handle, in order to make it conform, as far as he can, to his ancient implement. In recognition of this fact, an Illinois firm has recently introduced a form of plow with one handle. A bundle of brush constitutes the harrow. The hoe is frequently a wooden strap with an iron spike in the end. The sickle is of ancient type; but instead of having a sharp edge, it is provided with sawteeth, and is used in gathering small grain, the employment of a cradle for such a purpose being unknown. With the exception of a few districts, all grain is thrashed by the feet of horses or mules, which are driven around in a ring, the straw being first spread on the ground. The grain is separated from the chaff by the action of the wind. One objection urged by Mexicans to thrashing-machines is that they leave the straw whole, while by the use of horses it is, by the constant trampling, cut as fine as if run through a feed-cutter. As this straw is universally used as feed, any further preparation is obviated.

3. Mines.— The mineral wealth of Mexico is very great. Her mountains contain almost every mineral in use in agriculture, manufactures, and the fine arts. But the mines of iron and lead have been almost wholly neglected, while those of silver and gold have been quite thoroughly worked. Copper is found in considerable quantities, and tin is abundant. Extensive iron mines exist in some provinces, but coal is very rare. A few precious stones are also found. Mexican gold is for the most part obtained from alluvial grounds, by means of washing. Grains of gold equivalent in value to more than one thousand dollars have been found in some places. In some mines the clayey soil with which the veins are filled contains so great a quantity of gold disseminated in impalpable particles, that the miners are compelled when they leave the mine, nearly naked, to bathe in large vessels, to prevent any of the auriferous clay from being carried off by them on their bodies.

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4. Mexico's Railroads. — It issaid that Mexico is a bad railroad country, because "so much of her is standing on edge;" yet there were, in November, 1899, 12,999 miles of track laid, counting the mileage of the tram-ways and the private roads, and much more was then under construction. Half of this has been laid since 1890. The building and operation of railroads have pushed Mexico forward very fast. The railroads have doubled their freight and passenger receipts during the last ten years.

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5. Education. — A short time ago scarcely one third of the entire population of Mexico could read. But with compulsory education, a gradual change is coming over the people, and there are to-day at least one million children in the primary schools supported by the federal government and the states. One evidence of the progress in educational lines is the newspaper. Where a few years ago one could scarcely be purchased, there are to-day as many as four hundred. Twelve of these are published in English, and several in other languages; forty-four of the number are dailies. Can we not see a significance in this fact, when we remember that to many the third angel's message will go through the printed page?

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6. A View of the Common People. - Bancroft, who has written a history of Mexico, says of the present condition: "As we penetrate the country, we are more and more struck with the phenomenon of a republic without a people. There is here no mediate class. The aristocracy is the nation. The low are very low; they are poor, ignorant, servile, and debased, with neither the heart nor the hope ever to attempt to better their condition. I had never before witnessed such squalid misery and so much of it; and yet the people do not know they are miserable. Sit at the door of your hotel, and you will see pass, as a procession of the accursed, the withered, the deformed, the lame, and the blind,-little filthy mothers with little filthy babies, the former but fourteen years old; and grizzly men and women with tanned and wrinkled skins, bent double and hobbling on canes and crutches." Chaplain C. C. Mc-Cabe, after laboring in Mexico, writes: "This is an accurate description. It is a faithful picture, - and this after three centuries and a half of the Church of Rome! But with the entrance of the gospel the scene is changing. The procession Bancroft watched still goes by; but another is coming after it,-well-dressed, wellfed, intelligent, and happy, and it is because of the good news of salvation." Will we share in this transformation?

> "A soul slept under A plain, rough face, Till Christ awakened Its hidden grace; And lo! it blossomed, till all the earth Marveled its beauty and praised its worth."



THE NEW EARTH

IT was some time ago, you will remember, that we began our study of God's wonderful creation, using as a foundation the simple story recorded in the first chapter of Genesis. Here we learned that God created the heaven and the earth, and that he spent six days in beautifying the earth, and making it a fit dwelling-place for man. God created light, heat, air, water, dry land, plants, sun, moon, stars, water animals, air animals, and last of all, man, who was to have dominion over the earth. We have studied all these subjects, and learned something about the wisdom, love, and power of God, as revealed in these wonderful creations. On the seventh day God rested from his work, and was refreshed as he looked upon it in all its beauty and perfection. Then he set apart every seventh day as a time when man should meditate upon his wonderful works.

Satan stepped in, and the results of his working have been seen in the history of our earth during the last six thousand years. The Lord has allowed sin to run its course, and the true character of Satan as a deceiver has been laid bare before the universe. We have seen how terrible are the results of sin upon man and the lower animals, and also upon the plant creation. The entire creation of God is groaning under the weight of sin; but Satan's works will soon be destroyed, and a glorious victory be won for God and his faithful children. We are living in the time when the last warning message, the third angel's message, is going to the world to save a people from the final destruction of the earth by fire. How many of us are going to have a part in the victory, and share in the reward of the saints in the earth made new?

There are many things in this world that give us some idea how the new earth will look. There will be plants in the new earth; but "instead of the thorn shall come up the fir tree, and instead of the brier shall come up the myrtle tree." "The wilderness and the solitary place shall be glad for them; and the desert shall rejoice, and blossom as the rose. It shall blossom abundantly, and rejoice even with joy and singing."

There will be animals in the new earth; but the spirit of antagonism, of quarreling and fighting, will be entirely absent. "The wolf and the lamb shall feed together, and the lion shall eat straw like the bullock." "The wolf also shall dwell with the lamb, and the leopard shall lie down with the kid; and the calf and the young lion and the fatling together; and a little child shall lead them. And the cow and the bear shall feed; their young ones shall lie down together: and the lion shall eat straw like the ox. And the sucking child shall play on the hole of the asp, and the weaned child shall put his hand on the cockatrice' den."

Man in the new earth will be strong, and the glow of health will be on his cheek; for "the inhabitants shall not say, I am sick: the people that dwell therein shall be forgiven their iniquity." They will spend their time in profitable employment. "They shall build houses, and inhabit them; and they shall plant vineyards, and eat the fruit of them." There will be no such thing as failure, but success will crown all their efforts. "They shall not build, and another inhabit; they shall not plant, and another eat: for as the days of a tree are the days of my people, and mine elect shall long enjoy the work of their hands."

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When the earth is renewed, the scripture will be fulfilled that says, "Behold, I make all things new. . . . He that overcometh shall inherit all things; and I will be his God, and he shall be my son." "The great controversy in ended. Sin and sinners are no more. The entire universe is clean. One pulse of harmony and gladness beats through the vast creation. From him who created all, flows light, and love, and gladness, throughout the realms of illimitable space. From the minutest atom to the greatest world, all things, animate and inanimate, in their unshadowed and perfect joy declare that God is love."

In all our study we have been considering the two great themes that will engage the minds of the redeemed throughout eternity - creation and redemption. Let us think of these things now, that we may be able to enter into the spirit of the wonderful plans of God when we are permitted to have a home in the earth M. E. CADY. made new.



DAY OF PENTECOST AND GIFTS OF THE SPIRIT

(May 19, 1900)

Lesson Scripture. - Acts 1:15; 2:1-42.

Memory Verses. - Acts 2: 38, 39.

Time: A. D. 31. Place: Jerusalem. Persons: Disciples, multitude of Jews and strangers.

QUESTIONS .

1. How many disciples met together to seek for the blessing of the Holy Spirit? Acts 1:15. How long did they seek before the blessing came? Acts 2 : 1; note 1.

2. In what manner and in what form did the Spirit descend? Vs. 2, 3. What was the result to the praying company? V. 4; note 2.

3. What special ones were at this time staying at Jerusalem? V. 5. When these heard of what had occurred, how were they affected? Why? V. 6. In amazement, what did they ask and say? Vs. 7, 8, 11-13. What nation-alties were present? Vs. 9-11; note 3.

4. In reply to the charge that the disciples were drunk, what did Peter first say? Vs. 14, 15; note 4. Continuing, of what did he say the occurrence was a fulfillment? Vs. 16-20. What precious promise found in the prophecy did he then quote? V. 21.

5. In what forcible words did Peter present before his hearers the rejection of Christ Jesus? Vs. 22, 23. Although Jesus had been cruci-fied, what had taken place? V. 24. What prophecy had foretold the resurrection of Jesus? Vs. 25-28.

6. To make plain that David had not spoken of himself, what did the apostle say concerning the prophet? V. 29. What conclusion did he then draw? Vs. 30, 31.

7. What connection did Peter then make between Jesus' resurrection and the giving of the Holy Spirit? Vs. 32-36; note 5. What was the effect of Peter's discourse upon the multitude? What did many say? V. 37; note 6.

8. What were the convicted ones admonished to do? Vs. 38-40. What assurance was given them? *Id.* How did the people respond? How many took a stand? V. 41. What was the experience of those who thus joined themselves to Christ? V. 42.

NOTES

1. The time spent in prayer can easily be determined by reference to two facts: First, Jesus remained on earth forty days; and second, Pentecost was the fiftieth day - "Pente" signifying fifty. They therefore waited and prayed ten days.

2. It is not man's part to dictate to the Lord the time or the manner in which the Holy Spirit shall be bestowed. It is sufficient that man be sure of one thing; namely, that he has fulfilled the condition that makes it possible for God to trust him with his Spirit. That condition is to have all sin put away. On the day of Pentecost, the Holy Spirit came and filled every channel that had been cleared for his reception. Thus far every one may enjoy a Pentecostal blessing. God will not defer the time when his church is ready. But while this is true, the fact that the Spirit at this time came in the form of "cloven tongues like as of fire," and as "a rushing mighty wind," should encourage no one to expect it to come in the same way to the church of to-day. To fix upon a plan by which it is to be received might lead to a failure to recognize it were it to come in some other way. Let us not look for some particular, remarkable demonstration, modeled after our own liking, but rather to the needful preparation, which will cause us to know and receive the Spirit whenever and in whatever form it shall appear. The apostolic church received the "early rain;" we are to enjoy the "latter rain." The early rain came with great power; the latter rain is to be with the greatest power, - all that man can endure. The early rain prepared the receiver for service; the latter rain is to prepare God's people not only for service, but for translation.

3. The Lord is to gather a people out of every nation, kindred, and tongue; and in his providence he brought his Spirit-filled followers into contact with those then gathered at Jerusalem, that from among them witnesses might be chosen who would carry the gospel to all lands. That this was the result, there can be no doubt; for in Col. 1:23 we are told that during the few years succeeding Pentecost, the good news "was preached to every creature which is under heaven."

4. It was not usual to eat or drink on any day before the third hour, at which time the morning sacrifice was performed. Lightfoot, on authority of Baronius, says: "And on these solemn festival days they used not to eat anything till high noon." This custom furnished a ready answer from Peter to the charge of drunkenness. --- "Bible Manners and Customs."

5. The Holy Spirit would never have been known by men had Jesus remained in the tomb. Upon his resurrection depends every blessing that comes from God to man. For "if Christ be not risen, then is our preaching vain, and your faith is also vain." 1 Cor. 15:14. But it is equally true that his resurrection is the bringing of blessing to mankind. Jesus, the resurrected One, is a living Saviour, whose life is an outflowing one. He could not live separate and distinct from his children on earth. To say that he is raised is equivalent to saying that by his Spirit-life he lives with, in, and for his people. Peter had learned this; and hence, to lead all to understand the truth of what they saw, he spoke at length upon the resurrection of Christ.

6. How simple and how short was that Pentecostal sermon, yet how marvelous the results! It was filled, not with argument, but with power. Standing in happy innocence before God, free from all conscious sin, Peter

afforded the Spirit of God an opportunity to work unhindered. Only a few minutes was necessary to bring men to their knees, with the anxious inquiry, "What shall we do?" That was a type of what will take place in the closing work of the third angel's message. Before long "the message will be carried not so much by argument as by the deep conviction of the Spirit of God." Thousands will again be converted in a day. And as the servants of God, filled with more than Pentecostal power, "hasten from place to place," the work will be quickly done, and the Lord will appear.



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Nos. 9 and 75, daily, except Sunday.	
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FOR EVERY DAY OF THE WEEK

"The shorter the day, the greater the blessing of sunshine."

MONDAY:

Father, give me the power to labor for mankind; Make me the mouth of such as can not speak; Eyes let me be to groping men and blind; A conscience to the base; and to the weak Let me be hands and feet; unto the foolish, mind;

And lead still farther on such as thy kingdom seek. — Selected.

TUESDAY:

Tribulation can not separate you from the love of God, which is in Christ Jesus our Lord. But the love of God will, in the end, separate you from tribulation, and bring you out of it, and give you fullness of joy.— J. Hewitson.

WEDNESDAY:

To be worth anything, character must be capable of standing firm upon its feet in the world of daily work, temptation, and trial, and able to bear the wear and tear of actual life. Cloistered virtues do not count for much.—Smiles.

THURSDAY:

"To be resigned when ills betide, Patient when favors are denied, And pleased with favors given,— This is wisdom's part; This is the incense of the heart, Whose fragrance smells to heaven."

FRIDAY:

We must put the glory of love, of best effort, of sacrifice, of prayer, of upward looking and heavenward reaching, into the routine of our life's every day, and then the most burdensome and uneventful life will be made splendid with the glory of God.— J. R. Miller.

SABBATH:

"It is of the Lord's mercies that we are not consumed, because his compassions fail not. They are new every morning."

By a vote of the General Conference Committee at its annual spring session it was decided to omit the *Berean Library* studies during the summer, and to resume the work about the first of October. The notes for Lesson 23, the last of the study of the book of Daniel, were given in last week's INSTRUCTOR. The vacation time will be well improved if some time is devoted to a thorough review.

A SPECIAL FEATURE

Of the next two numbers of the IN-STRUCTOR will be two articles in our "Overhead" series, on, first, the general nature of eclipses; and, second, the eclipse of the sun to take place on the morning of May 28. In these articles Dr. Godsmark will tell, in simple language, that all can understand, the causes governing this phenomenon, and the exact relation of the sun, moon, and earth, on the morning when the special eclipse under discussion will take place. The author has prepared special drawings for the articles, showing just how the sun will look in our latitude during the different phases of the eclipse, a map giving the exact line of totality, etc., etc.

You can not afford to miss these numbers of the INSTRUCTOR—indeed, you can not afford to miss the INSTRUCTOR at all. We trust that Sabbath-school librarians, or those having the matter in charge, will see that expiring clubs are promptly renewed, so that those depending on the Sabbath-school for their paper may not be without it at this time.

BIBLE NATURE STUDIES

DURING the last two years the INSTRUCTOR has been furnished, at varying intervals, with articles on the study of nature, written by Prof. M. E. Cady, now in charge of the work at Healdsburg College. The articles in this series, the concluding number of which is given in this issue, have appeared under various general headings; such as, "God's Handiwork," "The Realm of Nature," "Nature Study," etc. The casual reader may not have noticed any logical connection between the articles; but those who have studied them more closely have seen that the entire series, has been developed according to a plan, and based upon God's word.

The first chapter of Genesis contains the story of creation, and furnishes subject-matter for the study of the entire field of nature. In order to bring the matter clearly before the mind, we will review briefly. The articles have appeared under the following subheadings:—

- 1. "In the Beginning." Gen. 1:1, 2.
- 2. Light (Heat). Gen. 1:3-5.
- 3. Air (Sound). Gen. 1:6-8.
- 4. Water (Seas). Gen. 1:9, 10.
- 5. Dry Land (Earth). Gen. 1:9, 10.
- 6. Plants. Gen. 1:11-13.
- 7. Sun, Moon, and Stars. Gen. 1:14-19.
- 8. Water Animals. Gen. 1:20-23.
- 9. Air Animals. Gen. 1 : 20-23.
- 10. Land Animals. Gen. 1:24, 25.
- 11. Man. Gen. 1:26-31.
- 12. The Sabbath and Nature. Gen. 2:1-3.
- 13. The Fall of Man. Genesis 2 and 3.
- 14. The Flood. Gen. 6:2-9. **§**
- 15. Destruction of the Earth by Fire (Bible).
- 16. The New Earth (Bible).

By studying this outline, it will be readily seen that it includes every phase of nature study. Even the studies carried on in high schools, colleges, and universities are all based upon the things that God has made. In studying light, heat, air, and sound, we are studying physics, or natural philosophy. If we study the distribution of land and water, we are study-

the solid portions of the earth as to their composition, we are studying chemistry. If we study minerals, we are studying mineralogy. In the study of plants we enter the field of botany. In the study of sun, moon, and stars we enter the realm of astronomy. In the study of water animals, air animals, and land animals we consider the subject of zoology. In the study of fish we study icthyology. The birds of the air introduce us to the subject of ornithology. The study of man, his physical being, is the study of physiology. In the study of man we are introduced to a large number of subjects that treat of man in his various relations to nature, to his fellow beings, and to God. The record of man's life, written up to the present, is termed history. The ability that man possesses to communicate with his fellow beings and his Creator gives us the study of language. The social condition of mankind develops the study of sociology; the study of the races of men, ethnology; the study of man's intellectual powers, mental science; and the study of man's obligation to his fellow man and to his Creator, moral science. The study of the forms of government which men have devised is called civics, and the study of all that man has made is known as art.

ing geography. If we study air, water, and

We might go on indefinitely; but what has been given illustrates how the whole field of nature is comprised in the study of God's creation, as recorded in the first chapter of Genesis. God set apart one day in every seven for man to devote especially to the study of his wonderful creation; this day he calls the Sabbath. The study of the fall of man, the flood, the destruction of the earth by fire, and the new earth brings to view the results of sin, and the plan devised to restore the earth to its Edenic beauty.

Thus we see that this series of articles has covered, under the first twelve subjects, the work of creation, the remaining four subjects treating of the work of redemption. Creation and redemption are the two great themes for the student. He should begin the study of these now, that he may be permitted to continue their study throughout all eternity.

Though this field of study has been meagerly covered in the INSTRUCTOR, it is the hope of the author that some hearts have been thereby awakened to a more thoughtful contemplation of God's handiwork.

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MAY, 1900
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