

Months' Department.

BIBLE LESSONS.

Sunday, June 16th, 1867.

ACTS xvi. 22-40: Paul and Silas imprisoned. 2 Kings xviii. 1-16: Hezekiah destroyeth idolatry. Recite—ECCLESIASTES viii. 12-13.

Sunday, June 23rd, 1867.

ACTS xvii. 1-16: Paul preaches at Thessalonica. 2 Kings xviii. 17-37: Rab-Shakeh revileth Hezekiah. Recite—JOHN xv. 1-5.

Self-Reliance.

A STORY FOR BOYS.

In one of our Western cities, lives a little boy by the name of Harry Lutrel. His father and mother were poor but honest people. They used to say, if they couldn't give Harry much else, they would give him a good education.

He used to go to school regularly, and used all his opportunities. When he was about eight years old the rebellion broke out, and as Harry's father was a "staunch Union man," he volunteered his services. Before leaving, he told Harry to keep at school, and learn all he could, to be kind to his mother, and true to his country and his God.

After his father had gone, things went on the same as usual for a while, then news came that his father was killed in some great battle, Antietam I think it was; and his mother did not survive long after that.

Now little Harry was left quite alone, as he did not know that he had a relation in the world. The neighbors took charge of what little property Mrs. Lutrel left; it was sold at auction, and one of the neighbors boarded Harry till the proceeds were gone. After that they told him he must look out for himself, that he could run errands, pile wood, and do a great many such things by which he could earn his living.

Poor Harry tried it for a while, but he came to the conclusion that "it didn't pay." His clothes had become quite ragged, and he was often hungry. One day he sat by the wayside, upon a log, thinking of his hard lot, and what he had better do. All at once he jumped up, and said, "I'll do it! at any rate I will try." So he walked direct to the store of an eminent merchant whom he had often heard his father speak of as being very kind and benevolent.

As he went into the store, he asked one of the clerks if Mr. B. was in? "Yes, in the counting room," pointing towards the door. Harry went in, and stood with his hat in his hand; in a moment Mr. B. saw him, and said, "Well, my boy, what did you wish for?" Then Harry said, "Please, Mr. B., will you loan me fifty cents, and I will give you my note at ten per cent interest." Mr. B. looked at Harry in astonishment, but seeing he was quite an intelligent looking boy, he said, "Well, my lad, what do you intend to do with it?" and Harry answered, "Invest it in trade, sir, and try to earn my living."

Mr. B. handed him fifty cents, and told him he would make him a present of it, but Harry said "No sir; I would rather give my note." "Very well, said Mr. B., "then we will do it in regular business style." When Harry left the store he invested the fifty cents in oranges and newspapers; before night he had doubled his money.

Thus he went on day after day, till at the end of a month he presented himself to Mr. B. saying, "I have come, sir, to pay my note. Mr. B. had almost forgotten the circumstance, but it soon came to his mind, and he said, "Very well, my boy; how have you made out in trade?" Harry told him he made forty dollars that month; then Mr. B. said, "You have done nobly, my little fellow; if ever I can do anything to help you, I should be most happy to." Harry thanked him, and said if he ever needed help, he would call upon him, but he guessed he could take care of himself.

My dear little readers, I trust none of you will ever be as badly off as poor little Harry was; but don't you think there are many things you could do now to show the same self-reliant spirit that Harry displayed? Think about it, and then do all you can to make yourselves useful members of society.—Christian Register.

Peggy and her Put-backs.

Though you know the meaning of Peggy, you do not know the meaning of put-backs. Well, we will tell you.

Our best advice does little good, Unless our words are understood,

Peggy Price had two enemies, who were always hindering her in what she had to do; so, because they were always putting her back in her duty, we called them *put-backs*, and that is no bad name for them. Having thus made our meaning plain, we will at once proceed to tell you about Peggy and her put-backs.

But, perhaps, before we begin, you would like to know who Peggy's put-backs were? We will tell you this also. They were not two people pushing her back when she wanted to go anywhere, nor two great dogs frightening her on her way; but two little words that went with her wherever she went, and prevented her from doing what she ought to have done. These two little words were *If* and *But*.

Peggy Price went to a Sunday school, and there a little doubt that she would have improved fast in her learning if she had done her

best, but she did not. If Peggy had chosen her friends from the best scholars in the school, and not from the worst; if she had followed the good advice of her teacher; if she had thought of the great use that learning would be to her in her future life, and if she had made up her mind to be a reader of God's holy word, and a doer of his holy will, every day she would have become wiser and better; but she did none of these things, and thus it was that *if* and *but* prevented Peggy Price from being a good scholar.

Peggy went to a place of service, and her mother and her mistress both hoped that she would get on nicely; and so she might if she had only done what they wished her to do, but she would not. Peggy was willful—would have her own way—and willful people are sure to be wrong. If she had been patient, humble, and anxious to do her duty; if she had won the good opinion of her mistress; if she had been tidy instead of being slatternly, careful instead of being careless, and diligent instead of being idle, she would have been much happier than she was, and increased the comforts of those around her; but she was none of these. Of all the girls her mistress had ever had, Peggy gave her the most trouble. The least trifle prevented her from doing her duty; and so if and but put back Peggy Price from being a good servant.

Peggy at last got married, and no doubt her husband expected to live very happily with her; but in this he reckoned wrong, for she thought little of him, and much of herself. If Peggy had said to herself, "My husband works hard, and brings home his wages, and it is my duty to add to his comfort in every way—by making him a tidy, cheerful, happy home," all might have been well, but she did nothing of the sort. No wonder, then, her husband should find his way to the pothouse. If Peggy, even then, had changed her conduct, she might have won back her husband to his old, loving ways; but she did not, and thus if and but prevented Peggy Price from being a good wife.

Peggy, when she had lost the love of her husband, became very unhappy, as might have been expected, and was willing, as she said, to do everything on her part to make things comfortable. "Fear God and keep his commandments," said a neighbor to her, "and pray to him, in the Saviour's name, for your husband and yourself; and read his holy word, and do his holy will, and then there will be some hope of you."

And Peggy would have followed her neighbor's advice if she had not been prevented. If all her neighbors had been pious people, and if they had all encouraged her, and not laughed at her, most likely she would have taken to good ways; but her neighbors were not all pious, and they did not encourage her, and they did laugh at her, and so she remained the same careless, unhappy wife she was before. In this way it was that if and but kept Peggy Price from taking to pious ways.

I have now told you, little reader, all about Peggy Price and her put-backs, and hope, without an if or a but, that you will get good from my tale. All who would be happy must do what is right, and they who would do what is right, must not be put back either by little things or great things.

When Joshua gathered the tribes of Israel together and reminded them of all the great things God had done for him, he did not tell them that he would serve the Lord if they would, but that he would serve him whether they would or not. His words were: "Choose you this day whom ye will serve; but as for me and my house, we will serve the Lord." Joshua 24: 15.

This is the spirit that should be in our hearts; we should not say, we will do what we ought to do if other people will do it, but we will do it whether they will or not. Oh, make up your minds, in earthly things and in heavenly things, to avoid the error of Peggy Price;

And practice piety in all Its loveliness and beauty— Let "Ifs" and "Buts" say what they will, And mind you do your duty. —Child's Companion.

Queen Victoria as an Author.

The fact is not generally known, either here or in America, that her Majesty Queen Victoria has written a work entitled *Leaves from a Journal in the Highlands*, which consists of about forty papers, descriptive of her life at Balmoral and the neighbourhood. The work is illustrated by photographs and woodcuts from Her Majesty's sketches. It contains, among other interesting matter, three long accounts of *incognito* journeys made by the Prince Consort and herself to different parts of Scotland, and the adventures they met with. In one of the papers she gives an account of the preaching of Dr. Norman McLeod, of Glasgow, and after stating how astonished she was that any one could preach "so eloquently and touchingly without notes," she adds, "and then he prayed so kindly for me and the Prince in the after prayer that I was deeply touched; but when he invoked God's blessing on the children I felt a great lump come in my throat." She had not expected to be prayed for so kindly by a Presbyterian, and least of all did she expect him to remember the children. I think there is something touching in this simple note of the Queen wife and mother which shows how true a woman she is. Only forty copies of the work have been printed for special friends and favorites, but sooner or later it will, of course, be reprinted, and will be a most interesting addition to contemporary literature. What would the world not give for such a work by Queen Mary or Queen Elizabeth? The copy from which I

have quoted bore on the title-page the following inscription:—"To dear Jeannie G., in remembrance of many, many happy hours—gone never to return again. From V. R." Her Majesty has also written the preface to a life of the Prince Consort, which General Grey is preparing for private distribution.—London Correspondent of *Springfield (Massachusetts), Republican*.

GOLDEN WORDS FOR DAILY USE.

Selected from C. H. Spurgeon's "Morning by Morning."

JUNE 16. Sunday. According to the riches of his glory, Eph. iii. 16.

No tongue can tell how great that glory will be which the Saviour will give thee, O believer. Surely, then, every day's experience should bring thee so long for his appearing more.

17. Monday. And He shall sit as a refiner and purifier of silver, Mal. iii. 3.

How admirably this process of refining silver illustrates the gracious process by which our heavenly Father carries on the work of purification in the hearts of his children.

18. Tuesday. With the heart man believeth unto righteousness, Rom. x. 10.

The sinner who is drawn to Christ is not he who has learned that he is so by head knowledge, but that feels himself such by heart-felt contrition.

19. Wednesday. Grieve not the Holy Spirit of God, whereby ye are sealed unto the day of redemption, Eph. iv. 30.

Christians are sealed by the Holy Ghost, and to this seal they trust their eternal welfare, not to naked knowledge or speculative notions.

20. Thursday. Or ever I was aware, my soul made me like the chariots of Amminadib, Sol. Song vi. 12.

These are happy moments when we are permitted to behold the King in his beauty, when He discovers his matchless love, and gives us a taste of joys above.

21. Friday. Looking unto Jesus, Heb. xii. 2.

We are constantly guilty of looking too much into ourselves, and too little to the Saviour. We pore upon the disease till we forget the Physician.

22. Sunday. I will meditate in thy precepts, Psa. cxix. 15.

Our souls are not nourished merely by listening awhile to this and then to the other part of divine truth, but we must muse upon the things of God. It is thus we get from them real nutriment.

Scientific.

A NEW THEORY OF HEAT.—Prof. Mayer says the heat of the sun is due to the percussion of meteorites, asteroids, &c., on its surface, drawn thither by the attraction of gravitation. What is commonly known as "space" is claimed to be an attenuated atmosphere of matter, offering a slight resistance to planets, &c., in their orbits. Centrifugal force is lessened, equilibrium destroyed, and the body, slowly at first, but surely approaches this common sepulture. The heat developed by a body thus falling into the sun is from 4,600 to 9,200 times greater than would result from the combustion of an equal mass of coal. Every mechanic knows that a few vigorous blows of a hammer on a piece of iron will heat it almost to redness. Compare, if you can, the force of that puny arm with the force of a body millions of tons in weight, rushing into the sun at a velocity of eighty-five miles a second, and you may realize the immense amount of heat developed.

UTILIZATION OF CENTRIFUGAL FORCE.—Many simple and yet ingenious applications of centrifugal force might be enumerated, of which the following are noteworthy: A drying wheel is constructed for laundry use upon this principle. The wheel is hollow to receive the wet clothes, and perforated at one point so that the water will escape. By a rapid rotation of the wheel the clothes are thrown with such force against the outer side of the annular space as to expel all their moisture almost instantly. By another contrivance of centrifugal action steel pens are dried when they come from the tempering baths. By still another, the fulminating powder is projected into the farther extremity of percussion capsules, leaving the open edge and sides free from it. Again, this force is effectively used to separate ores from impurities, and still more ingeniously to granulate syrups in the manufacture of sugars. The measure of the centrifugal force is in proportion to the velocity of rotation, but even a slow revolution of surfaces develops a measurable degree of this power. A very swift rotating motion tends to overcome gravity and cohesion, and if not checked produces more or less disintegration of the body subjected to it.

PARTNERSHIPS OF INDUSTRY.—There are now between 2,000 and 3,000 shareholders in companies based upon the principle of uniting the interests of the capitalists with the interests of the workers, and there are at least 8,000 to 10,000 workpeople employed by these companies. These numbers are daily increasing. We may add to this constituency a large number of commercial men, friends of social progress, investors, and others, who, though not actual participators in the work, are watching the movement with great interest.—*Industrial Partnerships Record*.

An alloy of steel and platinum is found to be most admirably adapted for edge tools. The proportion of platinum is about one and a half per cent.

White pine wood is now stained of exquisite and permanent colors by a pneumatic process of dyeing it, which is the invention of an American.

Agriculture, &c.

Draught in Ploughing.

Many suppose that the draught of a plough is, to some extent, dependent on the speed of the team employed. It appears to some that friction, or resistance of the plough, is less when the cattle move rapidly; others, perhaps, think it increased; but the fact is the draught is wholly independent of the rate of movement through the soil. It is important, therefore, that we employ animals that naturally walk quickly.

The actual labour of draught being no greater, the oxen or horses that move naturally at a rapid pace, accomplish nearly double the work with the same effort, that others, whose pace is sluggish and lazy, will do; and so the actual expense to the farmer is no greater; or in other words he saves half or nearly half the cost of ploughing by the use of a quickly moving team, that is if this rapid pace is the natural movement, and not one induced by over urging.

This is a point which we think is too often overlooked. One yoke of oxen may plough an acre in six hours. Another will do little more than half the amount. If the former is done without distressing the cattle and thus causing a greater wear and tear, it is obvious that it has cost no more.

It is to be borne in mind that a certain amount of physical effort is spent and lost to the farmer by the labour required to move the animal's own weight. This expenditure varies, of course, with the size and weight of the animal frame. It is plain as day, therefore, that for ordinary farm work, light built and active horses and oxen are the most profitable. They do a greater amount of work with the same effort, and therefore at less expense to the farmer, than very large animals.

Take an animal to plough a hill-side, for instance, up and down, and see the difference of effort to carry his own weight between a heavy and a light one. The exertion required to plough the up-hill furrow is immensely greater than that down, and yet, strange as it may appear, the draught of the plough does not vary, if at all, but in the slightest degree, in the two furrows.

This difference in effort in ploughing up and down a hill is owing to the labour of carrying the animal's own weight almost entirely, and so the great advantage of light or medium animals over heavy ones becomes very obvious.

When a plough is rightly constructed, the use of a wheel does not add to its draught, or, if in any degree, but very slightly. The difference in draught with or without a wheel is imperceptible.

The chief resistance is due to the cutting surfaces of the plough, and hence the importance of keeping them in good order. Only about ten per cent. of the draught is due to turning the furrow slice by the mould-board in a properly constructed plough. Probably about fifty or fifty-five per cent., on an average, of the draught of ploughing, is due to the cutting the furrow slice, leaving from thirty to thirty-five per cent. due to the mere weight of the implement. We ought to aim for the greatest strength in the smallest compass. Keep the sock and coulter, the cutting surfaces, in order.—*Mass Ploughman*.

GRASSHOPPERS.—A correspondent of the *Kansas Home Journal*, writing about grasshoppers, says: "Grasshoppers are very numerous on all roads and in cultivated fields, but on the uplands and unbroken prairie there are but few. The people do not fear them, but are planting as usual. From many causes they did not increase in numbers, though constantly hatching new swarms. The greatest destroyers of these pests are the millions of blackbirds, now a hundred times more numerous than ever before, and where the insects are most numerous there is the greatest number of birds."

PLANT TREES.—We sometimes hear a man object to planting orchards or gardens because the prime of his life is past, and he thinks he may not live to eat the fruit of his labor. The rapidity with which currants, gooseberries, raspberries, grape vines and dwarf pears come into bearing, should completely upset these objections. The strawberry and blackberry yield some fruit the first year after being planted, and a full crop the second year.

ABSORBING THE STING OF BEES.—A writer in a recent number of the *Scottish Gardener* says: "To tame vicious bees, we have only to accustom them to the form of human beings. A scarecrow, or what my Scotch friends call 'a potato bogie,' placed in front of the hives of stinging bees, is a great help. It can be shifted now and then; and to provoke a general attack, place a loose waving rag or handkerchief in the hands of the bogie. I have been told that vicious, kicking horses have been completely cured by hanging bags of hay behind them in the stalls. They kicked and plunged at the bags till their strength was exhausted, when their vice and folly left them, so that they quietly tolerated the bags to dangle by their sides, and grooms to do as they liked. In like manner the bees attack the waving, provoking handkerchief, and sting it till their vice leaves them. That which scares crows tends to domesticate bees. If kept in a garden where men, and children are often seen, and where they are not disturbed, bees are as tame and peaceable as cocks and hens."

A diseased system may be corrected, and its vitalities restored to healthy action by the use of Parsons' Purgative Pills.