

The Sunday School Lesson

AUGUST 19.

Stephen the Martyr, Acts 6: 1 to 8: 3; 22: 20. Golden Text — Who shall separate us from the love of Christ? shall tribulation, or distress, or persecution, or famine, or nakedness, or peril, or sword?—Rom. 8: 35.

LESSON SETTING—In the fourth chapter of Acts we read, "Neither said any of them that ought of the things which he possessed was his own; but they had all things common." The distribution of this common fund was supervised by the apostles, but complaints arose about the distribution, and the apostles, seeing that the preaching of the Word was their pressing first duty, asked for the appointment of seven men of honest report and full of the Holy Spirit and wisdom. Of the seven men chosen, the first mentioned is Stephen, and he is described as a man "full of faith and of the Holy Spirit." No nobler character ever wore the martyr's crown.

I. STEPHEN'S SHINING FACE, ACTS 6: 8-15.

Vs. 8, 9. *Stephen, full of faith and power.* The task to which Stephen was appointed did not prevent him from taking a conspicuous part in the preaching of the Gospel. *Did great wonders.* He seems to have been as largely used by the Spirit as the apostles themselves. *Certain of the synagogue . . . of the Libertines . . . disputing.* The number of synagogues in Jerusalem was very large, some where between three and four hundred. The Libertines were most likely the children of Jews who had been carried to Rome as captives by Pompey. Being made freedmen (libertini) they had returned to Jerusalem and formed a synagogue among themselves. Cyrene was a city in Africa. Alexandria was in Egypt. Cilicia and Asia were provinces in Asia Minor. In all these places there were many Jews and in Jerusalem there were many who had returned from these places and had their synagogue in Rome. *Disputing with Stephen* regarding the truth of the Gospel which he preached, and chiefly the Messiahship of Jesus, which was the crucial truth.

Vs. 10, 11. *Were not able to resist.* Stephen's natural abilities were reinforced by the gift of the Spirit. His utter sincerity puts to shame the quibbling opponents. *They suborned men.* When they cannot overthrow Stephen in argument, they begin to plot against him by procuring false witnesses against him. They follow the same policy as was used against Jesus. *We have heard him speak blasphemous words.* His enemies were cunning enough to make a charge that had some semblance of truth in it. Stephen doubtless made the teachings of Jesus supreme above the law of Moses, but taught that the law had been fulfilled, not destroyed, by his Master. So also, as we shall see, the charge stated later, that he had spoken against the Temple, only meant that Stephen had taught that God's dwelling place was not confined to the Temple.

Vs. 12-15. *They stirred up the people.* The common people gloried in the temple. They would be greatly moved by any word said against it and would not stop to examine into the truth of the charge. *Brought him to the council;* the Sanhedrin, composed of seventy-one members, which dealt with matters of Jewish religion. All looked at him steadfastly, waiting for him to speak his words of defence. *Face of an angel.* Instead of beholding a man with anxiety and fear upon his face, courage, grace, faith, beauty of character all shone upon his countenance. Amid the seething faces there was one radiant one.

SHEEP

Sheep, more than any other class of farm animals, are benefited by frequent changes of pasture. When kept on one pasture continuously they graze certain portions very closely; but the parts grazed should have a chance to recover. The same amount of pasture will give much better results when divided into two or more fields, and grazed alternately.

Quick, uninterrupted growth from birth to marketing is absolutely necessary for well finished profitable lambs. Breeding stock, whether ewes or ram lambs, should be kept growing. While the pastures are good and the ewes are milking well the lambs may thrive without any other feed, although larger gains are possible when grain is fed. Grain never gives such returns as when fed young growing animals. In the latter part of July, however, the pastures lose their early palatability and the ewes begin to dry up. Unless there is abundant range at this time there is danger of the lambs being under-nourished. Green feed in the form of pasture or as a soiling crop, and grain will give good returns if fed at this time. Owing to labor cost, pasturing is the only practical way to feed clover aftermath. Oats and peas, or rape, make excellent summer pasture. While rape is good feed, sheep should not be closely confined on rape alone but should have the run of a grass pasture. An ideal arrangement is to have the rape field adjacent to some pasture, and arrange the gate so that the lambs can go from the rape to the pasture at will. If grain is fed before the lambs are weaned it should be fed in a lamb creep. This creep should be constructed so that the lambs can enter, but the mothers are prevented owing to the limited size of the opening. Grain fed to the lambs will give better results than if fed to the entire flock.

March and April lambs should be weaned and put on fresh nutritive pasture early in August. When the lambs are weaned early and put on clean ground it lessens the danger of their becoming infested with internal

II. STEPHEN'S FORGIVING HEART, ACTS 7: 54-60.

Vs. 54, 55. *When they heard these things.* The central argument of Stephen is based wholly on scripture. *Cut to the heart.* . . . *gnashed . . . with their teeth.* The strength of Stephen's argument and the truth of his accusation only stirred them to rage that they could not conceal. Stephen is not allowed to finish his speech. *But he . . . looked . . . into heaven;* again the strange contrast between the accusers and the accused. He is blind to their anger. He sees not only the glory of God, but Jesus himself in the place of honor and the attitude of power. It was a mighty confirmation of all that he had been saying.

Vs. 56-60. *They cried . . . ran . . . stoned him.* Stoning was the common form of death-penalty for blasphemy. The law required that the sentence must be carried out beyond the city walls. *The witnesses laid down their clothes;* laid aside their outer garments for action. The law required that the witnesses against the accused must cast the first stones. In this way the chief responsibility rested on them. *Whose name was Saul.* In this abrupt and dramatic way we get our first glimpse of the great apostle of the Gentiles, as a persecutor. The description "young men" is applicable to any one about the age of forty. *Receive my spirit.* In this great hour, Jesus is his strength. *Lay not this sin to their charge.* Like his Master, he shows his spirit of utter forgiveness.

APPLICATION.

Stephen had surely won the admiration and love of the early Church when the historian of those first days could say such things of him as we find in this sixth chapter of Acts. He was "full of grace and power," in speech he manifested "wisdom and the Spirit," and among the company of the first deacons he is the one man singled out and characterized as "a man full of faith and power." Dr. Tenny said, "When we open the New Testament we find ourselves in the presence of a glowing religious life. There is nothing in the world which offers any real parallel either to this life, or to the collection of books which attests it. The soul, which in contemporary literature is bound in shallows and in miseries, is here raised as on a great tidal wave of spiritual blessing . . . This religious life is determined by Christ. . . . If we sum it up in the one word 'faith' it is faith in God through him—a faith which owes to him all that is characteristic in it, all that distinguishes it from what is elsewhere known among men by that name." These brief tributes that Luke pays to Stephen suggest that "glowing religious life"—faith in God through Christ, the conscious fellowship of the Holy Spirit, giving wisdom and power, a beautiful spirit, and "the assurance of victory." That glowing religious life is revealed in many ways, in his zeal and courage and powerful speech and wonderful forgiving spirit, but it also showed itself in his very countenance. "All that sat in the council, looking steadfastly on him, saw his face as it had been the face of an angel." There is a Christian type of face. The beauty of the Lord is upon them that are possessed by him. "He will beautify the meek with salvation."

The Sacking Method.

For several years I have been using two flat racks fitted with side boards and end gates like a wagon box to take care of the grain at threshing time. When the set is made outside of a barn this plan saves a lot of lifting and requires less help, providing the bins are situated properly for quick unloading. My bins all face to a driveway and fill from the top. Remove from the bagger spout and use short spout. Run the grain in sacks, putting in one bushel of wheat or rye, or one and one-half bushels of oats per sack. Set sacks in tiers. Do not tie. Make a "run" of about sixty bushels of wheat or rye, and ninety bushels of oats. One man to each wagon and a boy to hold sacks will handle all the grain any machine will put out. Might say I do not sack any grain when drawing to market. Set wagon in front of bin, scoop direct into box. Twenty to thirty minutes will put on a load of ninety to one hundred bushels.—A. B. Y.

If the cabbage plants are not heading, the cabbage worm may be controlled by spraying the plants with kerosene emulsion, or with Paris green to which a sticker has been added. After heading has started then hellebore should be used instead of the poison.

POULTRY

There is a tendency among some people to believe that poultry do not require any special care during the summer months, and may be allowed practically to shift for themselves. While it is true that conditions are more favorable for growing stock, and for egg production in adult stock, yet at no time of the year is more care necessary to prevent disease and vermin than during the warm summer months. Poultry kept in close, stuffy sleeping quarters cannot be kept in the best condition of health, and are fit subjects for the ravages of lice and mites. It would be much better to have wire netting put in place of the glass windows in order that more fresh air might circulate in the house.

A very strict watch must be kept for any evidence of lice or mites as soon as warm weather commences. If lice are present on the birds, treat each bird individually with some Blue Mercury ointment, or some reliable dusting powder, and if red mites are present on the perches or walls, the birds should be removed from the house for a day or two, and the building thoroughly fumigated, followed by a really good cleaning of every part of the interior. A thorough occasional white-washing of the whole interior of the house will make the place more sanitary. Poultry confined to yards where there is no natural shade from the hot rays of the sun, should be provided with shelter of some sort; sunflowers or artichokes planted in the yards and protected until they get a start, will provide most excellent shelter from the sun. Colony houses scattered through an orchard or cornfield make a very desirable place for the growing stock.

Filthy drinking vessels are the cause of a great many troubles in the poultry yards. Plenty of pure drinking water, which is kept in clean vessels in a sheltered place will benefit the stock to a large extent. Be sure that the young growing stock are well fed, to promote growth, and that they are given liberal range where there is abundance of green feed and also animal feed in the form of insects, worms, etc.

Cull out the old stock that you do not intend to keep over for another year, and sell them early while the price is higher and while they are in good condition before they commence to moult.

A Handy Grain Wagon.

Being short of help on the farm at threshing time, I found it necessary to make a large box about four feet high for my wagon. The bottom of this box was slanting at about a forty-five degree angle from the end and the left side, leaving the lowest part in the centre, in the right side of the box. At this low part I have an eight-inch hole with a sliding stop.

The sacking elevator on the threshing machine delivers the grain into the box, then when I get to the granary I place a chute from the window to the wagon, open the slide and in goes the grain. One man does it all and with no hard work.—John A. O'L.

THE HIDDEN SOURCE OF FIRES

Some Suggestions on Controlling Spontaneous Combustion.
By H. H. Musselman

At this season of the year a great many barn and building fires occur on the farm. Due to the isolated position of many of these buildings, they seem to furnish ready passage for lightning, so that lightning, as a cause of fires, is doubtless responsible for many of them. However, it is a fact that many of these fires, whose causes are obscure, cannot be accounted for in this way. The isolated position of these buildings would seem to make it easy to determine the causes of fires if started by human agencies. After lightning and the human element are taken into account there still remains a considerable proportion in which the causes are never fully determined or which must be put down as unknown.

It is perhaps a matter of common knowledge that spontaneous combustion may be a possible cause of some of the fires which are recorded as "cause unknown."

Spontaneous combustion is the burning of a material from heat generated within itself. It is well known that chemicals in combining produce heat. For example, a strong acid acting on a substance produces heat. The centre of a manure pile sometimes heats because of the reaction taking place. Materials which absorb oxygen from the air freely increase in temperature and if these substances are sufficiently exposed to the air and yet with not enough surface exposed to allow the heat to escape, the temperature will rise. Increased temperature favors more rapid chemical action and this in turn produces heat. Thus the increase in temperature may reach the ignition or burning point of the substance, if, as previously stated, radiation of the heat from the substance is not rapid enough to offset the increase.

One of the most responsive of commonly used substances which is subject to spontaneous heating is linseed oil. A handful of waste saturated with oil and allowed to drain, so that air can come in contact with it, will show a decided and rapid rise in temperature.

Another substance in which spontaneous combustion takes place readily is coal when piled in large masses

Tuning Up the Lawn Mower.

A few simple operations may be necessary to put your lawn mower in good condition.

Take the machine apart—really apart. There will be at least seventy pieces. Give each piece a bath in kerosene, using a scrub brush and wiping dry with an old rag. Be sure to do a good, thorough job of cleaning, as the mower cannot properly function if badly clogged with grass and dirt. After the bath and drying, assemble the machine without reference to adjustment.

Adjust the bearings so that there is no up-and-down play in the reel. This is tested by grasping the reel in the middle and lifting it. Bearings must be adjusted before the knives.

To adjust the knives, use a single sheet of old newspaper in place of grass, draw the reel knives and the bed knife together until the reel spins easily and yet cuts the paper. Be sure the slides are adjusted equally. Try the paper at two-inch intervals throughout the length of the bed knife.

If slipping in wheels occurs, remove wheels and examine pawls and pinion gear. The pawls are the small pieces of steel, usually flat or cylindrical, that slide through the reel spindle and by engaging in the pinion gear cause the reel to revolve. The pinion gear is the small gear that engages the teeth on the inside of the wheel, thus transmitting the power from wheel through pawls to reel. If your machine has flat pawls, the chances are that the pinion gear is at fault; if cylindrical, the pawl. Normally the teeth of the pinion gear are rounded or blunt; if sharp they will not properly mesh in the wheel teeth. New pinion gears cost very little and are easily installed. New pawls are even less expensive than pinion gears. So if there is any doubt about the way in which either is functioning, a new part is the shortest cut out of the difficulty.

It may be found that, due to some unusual strain, such as trying to cut a stick or stone, the bed knife of a reel knife has become sprung. Such a condition is indicated by one reel knife or a part of the bed knife refusing to cut when all other reel knives or the remainder of the bed knife cut perfectly. If the springing is not too great, it may be ground out at home. If very badly sprung, the mower should be sent to a repair man who has a machine constructed to grind lawn mowers. Never try to file a lawn mower; your chances of success in the job are very small.

O. A. C. Barley Grown in the United States.

Dr. C. A. Zavitz received a letter recently from Professor Moore of the Agricultural College of Wisconsin which contained the following interesting item: "Now practically all of the barley grown in Wisconsin and in many of our surrounding States emanates from the few pounds of barley which you so kindly sent us. We will never be able to get even for the good things you have done for us in bygone years."



COVER CROPS IN THE VEGETABLE GARDEN.

The use of cover crops for the production of humus has become of great importance since manure has been becoming steadily less available. The advent of the motor car has meant a new era in vegetable gardening to the extent that this manure is not produced in the desired quantities, so says C. C. Eldt, of the Department of Horticulture, Ontario Agricultural College.

In addition to supplying humus cover crops have a very great value in that they utilize available soil nutrients and carry them over in the plants in various organic compounds. For example, during the growing season bacterial action makes nitrogen available. Phosphorus and potash also become available slowly. To be available they must be in a soluble condition. During the fall and early spring it is natural to expect that these fertilizer constituents will be leached out of the soil if they are not brought into an insoluble condition. Where a cover crop is grown growth is made in which these elements are stored up. The fertilizers are therefore carried over till the next season and become quickly available as the plants decay down.

As soon as the crop is harvested the cover crop should be used. It has been found that even as late as the last of October a crop of rye planted will provide a good growth by early spring. The cover crop should be planted as soon as the last crop of the season is harvested. If the crop has been early vegetables and no other crop is to be harvested, a cover crop of oats and peas mixed is very suitable. It is used at the rate of ten pecks to the acre (7 pecks oats and 3 pecks peas). This by fall forms a dense growth which should be plowed down as late as possible. If the crop, however, has to stay in the ground over winter, winter rye does best. This should be planted at the rate of 2½ to 3 bushels per acre and is better spread broadcast than drilled and usually may be left until early spring or until the ground is needed for the next crop. The roots of rye tend to make a fine mechanical condition in the soil. However, it should not be allowed to grow too long in the spring as it makes very vigorous growth and might tend to leave the soil too open and porous when plowed under.

Wherever possible a cover crop should be sown as soon as possible after the preceding crop has been harvested. It is estimated that a good cover crop equals in value fifteen tons of manure. A grower cannot afford to waste this opportunity for food conservation and humus growth. Even where early vegetables are to be grown the following season it sometimes pays to leave the cover crop over winter, to hold readily available soil fertility.

GREEN FEED TO SUPPLEMENT PASTURE.

The three great factors affecting our dairy industry are: (1) The man who cares for the dairy cow. (2) The kind of cow maintained. (3) The feed supplied. It is the last mentioned, which will be dealt with principally here.

Waterproof Dams.

Years ago on the home ranch we used to build a good many earth dams across ravines and canons to retain rain water for the stock. The dams were not permanent as a rule, though they were usually built high enough to prevent any overflow.

In fact, the greatest trouble came from slow but constant seepage of the pent-up water along the surface of the original ground. No matter how well the fill was tamped the union between the fill and old ground was not quite complete. The water would work its way through, weaken a layer, then, without warning, a tiny rivulet would appear on the lower side, grow larger, and finally crumple the whole dam before it was borne down the gully on the crest of the flood water.

Had we then known of a simple trick in the construction of these dams it is safe to surmise that each dam would have lasted for a number of years. This trick involves the corrugating of the old ground surface with a plow or spade on the line the dam is to take. When the dam has been built, no water will seek its way along this line any quicker than through any other portion of the dam.—D. R. V. H.

A Gate Attachment.

An attachment that will always keep the garden gate closed consists of a wooden pulley fastened to the top of the gate near the post to which the hinges are attached. A strong cord or flexible wire is fastened around this pulley and passed horizontally through a smaller pulley to a weight. When the gate is opened the weight is raised, and when it is released pulls the gate shut and holds it so. The strength by which the gate is held may be varied by increasing or decreasing the diameter of the pulley or the size of the weight.

The man who has an interest in his dairy cows will give them good care and feed, and follow this up by weighing and testing his milk to determine how many of the cows are profitable producers. When the non-profitable cows are eliminated from the herd, his object will be to keep up a maximum flow of milk at a minimum cost throughout the entire lactation period. In some districts where old pastures are in use—and they are many—it has been found impossible to keep up the milk flow without supplementing the pasture with either concentrates or green feed of some nature. Mill feeds are too expensive to feed heavily throughout the entire season, and they reduce the profits unnecessarily. Select a small field as near the stable as possible, and which may be worked early in the spring. Sow it with oats, peas and vetch at the rate of 3 bushels per acre mixed in the following proportion: Banner and Gold Rain oats, 1½ bushels; Gold Vine peas, ¾ bushel; vetch, ¾ bushel. Apply nitrate of soda at the rate of 100 to 150 pounds per acre, to stimulate growth.

The amount of green feed required depends largely on the kind of pasture available. Under average conditions, from 20 to 30 pounds of green feed per cow per day will carry the herd over the dry period in reasonably good condition. For a herd of ten cows, one should have at least 250 pounds of green feed per day, available from the middle of July until the middle of September. In other words, it would require about 13 tons of green feed for the season. Under average conditions, this amount should be obtained from 1½ to 2 acres of well-tilled land.

In order to have this available at the right stage for feeding during the entire period, it should be sown at intervals of three weeks. For instance, the first half-acre should be sown as early in May as possible; the second half should be sown three weeks later; and so on until the area is all sown.

Our experience in providing green feed for the dairy herd at the Experimental Farm, Nappan, has been that by growing four acres of green feed we can carry fifty head of dairy cows through the season in reasonably good condition on twenty-five acres of pasture (twenty acres of this is rough pasture and very poor, providing very little more nourishment than the five acres of good pasture). Furthermore, the meal ration was cut from an average of 9.2 pounds per day to an average of 4.4 pounds, making a saving of 9 cents per head per day. A dairy cow may have inherited all the qualities of her ancestors as a producer, but unless she is supplied with a sufficient amount of the right kinds of raw material to manufacture milk, she will remain an unprofitable cow; therefore a supplement of these dried-up and poor pastures must be provided.

The growing of oats, peas and vetch as a supplement to these poor pastures is rapidly becoming recognized as the most economical method of supplying an abundance of succulent, palatable feed, rich in protein and carbohydrates, which are essential to the maintenance of good strong, healthy cows which will be money makers and not money losers.

Using the Blower.

Here is my idea of handling grain. First thresh the grain right into a triple wagon box and scoop it into the granary and save all of that heavy carrying of it in sacks as most every body does.

But the best way is to thresh the grain right into the wagon box. Then have a grain dump or blower that can be run with a gas engine of about three and one-half to four horsepower. The dump can be run with a team also. This method of handling any kind of grain does away with so much hand labor, and two or three men with two teams can handle all a thrasher puts out and can put the grain right where you want it.—B. L.

There is a Difference.

The other day a city friend went to a farmers' picnic with me. He enjoyed himself a lot and said to me that he did not think there was the big difference between the farmer and city man there used to be. I told him that I thought the auto and modern merchandizing helped to equalize things in some ways, but I thought there still was a difference. In the country we have plenty of wholesomeness and hard times, while in the city they have lots of money and vice. So take your choice.—F. W.

The Basement Barn Granary.

We thresh on the barn floor; we have a basement barn with the granary in the basement. We are having a big funnel made to fit the separator and silo filler pipes to lead them into the granary from the machine, so you see, all we need is the big funnel and silo filler pipes. I think this will be a lot better than the old way of carrying the grain in bags, which needs at least three men.—A. E.