

Efficient Farming

SHELTER KEEPS TOOLS FIT.

A story recently filtered in of an auction sale when a grain drill, which had been in use for thirty years sold for \$41. A neighbor of the family holding the sale bought the drill. He had used it and knew that it was well worth the money.

That machine had never been allowed to stand around in the field or in the barnyard. It had always been kept under cover.

At the same sale, which was held by the widow of the late Charles Stein, a twenty-four-year-old corn binder sold for \$99; a two-bottom gang plow which had seen fifteen years of service brought \$45; a nineteen-year-old farm wagon brought \$80; a sixteen-year-old fanning mill sold for \$26; a twenty-five-year-old side delivery hay rake sold for \$50; a twenty-seven-year-old hay loader sold for \$37, and the old family car which had been in use for nine years brought \$100.

It is significant that some of this machinery brought more at public auction and after many years of use, than it cost Stein in the beginning. Most of the machinery was purchased by neighbors who knew what they were buying. They knew that Stein always took the best kind of care of all his equipment, and the principal care he gave his farm machinery was shelter and plenty of oil.

In these days of high-priced building material it might not be advisable to rush headlong into the construction of an elaborate implement shed, although it might very well prove a profitable investment if there is very much machinery to be housed. But there are a great many places where farm machinery can be sheltered if just a little thought and consideration is given to the problem.

Very few barns are so designed that there is absolutely no waste space. Much of this waste space might be utilized for machinery storage. A little work in preparing the machinery for storage may be necessary, but much can be done along this line.

Aisles and alleysways in barns and granaries are often used for storing a grain drill or a mowing machine. Perhaps only one machine is stored in a space which might well accommodate three to four if they were properly stored. It isn't much of a job to remove the tongue from a mower or a grain drill and then move them up closely together. The space taken up by the tongue of a mower will very easily accommodate a grain drill and a hay rake. The bolts holding the tongues in place can be replaced in their respective places, the nuts turned on loosely and a tag, labelling from

which machine the tongue has been taken, slipped over a bolt-head. The tongues may then be placed against the wall or stored up among the rafters, completely out of the way.

Wagons which are not going to be used during the winter months can be just as readily stored by disassembling. The boxes can be swung up overhead in the barn and the removal of a bolt or two will take the running gears all apart. It's just a nice rainy day job to take a wagon apart, grease the skeins and put the parts away, and it will be well worth the time, for many wagons which would be stored away in a dry place if taken apart are left out in the weather all winter long simply because there isn't space for them under a roof.

It is much easier to keep bolts and nuts drawn up tight if the implements are taken apart occasionally, for in this way one will encounter the loose bolts, whereas, if the machines are never given an inspection, bolts will drop out completely and become lost and sooner or later make their lack known by a serious smash-up.

I recall a visit I made to a farmer at one time. This man had no real implement shed, but he took nearly all of his machinery apart every winter and gave it a thorough overhauling and a coat of paint. He found it much easier to paint the various parts than to paint the machine intact, and he was using old machinery which his father had used years before.

He took all of his wagons apart once a year and soaked the feloes and hubs in hot linseed oil for several hours. He painted the tongues and double-trees with hot oil and stored them among the rafters in his shop. His equipment was like new. The wagon boxes were given an annual scrubbing and a coat of varnish, and one old wagon that he had used for nineteen years still bore the name of the wagon and the dealer from whom he had purchased it. The wagon would have brought considerably more than he gave for it nineteen years before. It was worth more, and just a little care and shelter had made that possible. And the shelter had been nothing more than a utilization of waste space in several of the farm buildings.

Let us use more of this space on which we are paying interest and rent. We pay for the space whether we use it or not, and that space can be made to return good dividends in longer life and more efficiency in our farm equipment. Few of us ever get out of a farm implement all of the value that the manufacturer builds into it. We can easily get fifty per cent. more with just about two per cent. extra effort. That's certainly worth while.

Poultry

Cold weather is not a handicap to egg production as it stimulates the appetite and a hen, to lay heavily, must be a heavy feeder. Endurance is necessary to stand up under the heavy feeding and make a good record for the year. The average hen of the heavy breeds goes broody four times per year and some may go broody nine times. A hen loses twenty days, or about a dozen eggs, every time she goes broody.

The four-finger spread means that the ovary of the hen is functioning. The two-finger spread indicates the bird is not laying, but may produce later. Some crown-headed birds will lay at a profit, while others lack constitutional vigor. The skull of a good layer is flat on top when the bird is viewed from the front. Hens with masculine heads should be culled out. Good layers are flat-backed, with deep, flat ribs and they are close feathered. The close feathered birds are apt to be late moulting. A hen may moult a primary feather for each broody period. Up to September first you can count the new feathers and determine the times the hen has been broody.

Crown-headed birds may be caused by close breeding, over-crowding, or poor feeding. They throw slow feathering chicks, which means low winter production. That means low annual production. Over-refined birds lose weight rapidly, they often lay profitably, but mature too early. An early-maturing Barred Rock pullet at the college plant began laying when a little over three months old. The first sixty eggs she produced were without market value and weighed about an ounce each.

A good producing hen will have a waxy skin on the face and the eye will show femininity and character. An age of from five to six and a half months is about right for laying. The active busy hens have the laying temperament. The hens should hold the pigment, showing that they are receiving plenty of feed and do not have to draw on their reserves to produce the eggs.—K.

Peel, air-dry and paint the lower ends of wood fence-posts with two coats of hot creosote and get from three to six years more life from them. Dipping in the creosote is better, but will cost more.

Artificial light in the hen house is not a new idea. Early in the nineteenth century Spanish farmers tried lantern-light to increase egg production. An American writer found by dipping into an old Spanish book on poultry keeping.

Fertility at \$100 a Barrel.

In the early months of the past year a bacterial preparation was put on the market by a Toronto firm. Extravagant claims were made regarding the benefits to be derived from the use of this preparation as a crop improver when applied to the soil. Requests from farmers, agricultural representatives and newspaper publishers were received asking for an opinion regarding the claims made. In order to comply with these requests it was necessary for the Bacteriology Dept. of the O. A. College to make a bacteriological and chemical analysis of a sample of the preparation. This was done, with the following findings: Chemical tests showed no ammonia, no nitrite and no nitrate present. Bacterial cultures on various solid media showed various decomposition bacteria and moulds to be numerous; nitrifying bacteria, none; nitrogen fixing bacteria, none. Chemical tests of cultures made in the necessary specific liquid culture media showed ammonification as a result of the action of the decomposition bacteria but no nitrite nor nitrate formation nor any nitrogen fixation even after six weeks' cultivation. In addition to the laboratory, test which was anything but favorable to the preparation, plot tests were conducted at the Vineland Experiment Station on some crop plots. The report from these tests at Vineland shows that plots receiving no treatment did as well as those that were treated.

Farmers are advised to leave all "wonder working preparations" for soil treatment alone and to keep their money in their pockets until values are demonstrated by the Agricultural College.

Apply to Ontario Agricultural College.

The Bacteriology Dept. of the Ontario Agricultural College offers full service to the farmers of Ontario during 1925.

During 1924 the Bacteriology Dept. sent out to farmer applicants legume seed inoculations to the amount of 6,458. Lactic culture starters to the amount of 189 were sent out to creameries.

Several hundred morbid specimens of poultry, animals, plants and miscellaneous samples such as milk, cheese, butter, bee combs, preserves, soils, silage, etc., were received by the Department and reported on. Eighty-five samples of farm well water were examined of which seventy were condemned for pollution.

When adding medicine to the drinking water for hens, do not use metal vessels unless they are agate or porcelain lined. Earthenware water dishes are cheap and always preferable.



Miss Christabel Pankhurst, of London, internationally known orator and Bible lecturer, is now in New York, which is her first stop in an American and Canadian tour.

WHERE TO KEEP VALUABLE PAPERS

A farmer who is rated as more than ordinarily intelligent and progressive came into my office to talk over getting a loan. He was buying an adjoining farm and needed a few thousand dollars. As he was in a hurry for the money, my first question was as to his abstract of title.

He scratched his head in despair. "It's somewhere about home, but where?" was his ejaculation. "Blamed if I know. I'll ask Mary." From the delay, he and Mary must have been on a par about knowledge of their possessions, for it was not to be found and a new one had to be made in a hurry. A valuable document costing perhaps \$50 had been mislaid hopelessly.

There are people who come in with rat-chewed, rain-beaten, pocket-soiled, tattered legal documents, and unblushingly spread them out for people, whose time is valuable, to decipher. One client took from a dirty pocket a tobacco-stained document and without apology thrust it into the hands of the abstractor.

The abstractor was an elderly man with failing eyesight and it was almost impossible to erase enough of the tobacco to make it readable. Even a younger man could hardly have peered through the dirt to get the right meaning.

PROTECT AGAINST FIRE. Just why a little more care is not given to deeds, mortgages, contracts, abstracts, notes and returned cheques, is hard for me to figure out. The very least every farmer ought to do is to encase each and every valuable document separately in a stout manila envelope and write on the outside what it contains. Of course, this is no precaution against fire or theft, but it does enable other members of the family to recognize at a glance that this is no paper to be burned at house-cleaning time.

Better still is a tin box that rats and mice can not invade. Any kind of tin box with lid will do, but it is well to have some air-holes in the lid to prevent mustiness in damp weather. Such boxes are made especially for legal papers.

SAFETY DEPOSIT BOXES. The best plan of all is to put your papers in your own safety deposit box at the bank, along with your bonds and securities. Even if you have no bonds, it pays to put your legal documents in a safe box at the bank. Your will, and every farmer should make a will, should also be in this box. When you want to transact business you know exactly where to go for your papers.

If fire consumes your dwelling, and few country houses are ever saved if they catch fire, you will not have to worry about your documents. If some emergency makes it necessary to borrow money on real estate you can lay your hands on your abstract at once. Don't put it off. Begin to-day to

put everything in a safe place. Somebody may have to settle up your estate and you want to make it as easy as possible for your widow and children in that case. Get together your insurance policies, contracts, notes, mortgages, accounts, bonds, abstracts, deeds and all other valuable papers and make them safe. You will never regret it, and you may be thankful all the rest of your life for the few minutes' work.—H. B.

Fowls Must Be Rugged.

Constitutional vigor is the natural inheritance of all fowls, unless they have been enfeebled by injudicious breeding. Constitutional vigor may be maintained by selecting the strongest, healthiest and hardest birds for breeders in spring, and by killing off the weak and sickly in the fall. Fresh blood, frequently introduced, keeps up stamina, health and vigor, and enables the birds to resist sickness and sudden changes of weather much better than fowls injudiciously bred.

The factor of heredity must be recognized, and only by intelligent breeding along systematic lines can quality be maintained. The standard of utility is demanded, and to this supreme test must all classes of stock be brought. Nothing else will do or endure. No matter how choice the breeding, it will be of little worth unless backed by utility. This alone can determine the value of blood. Many a flock of hens condemned by the breeder would pay a good profit if given a chance. Utility covers the breeder as well as the breed.

A Demand for Small Cheese.

There is a very large and unsatisfied demand for a cheese of good quality weighing from five to ten pounds. This has been abundantly demonstrated at the Finch Dairy Station, operated for the past thirteen years by the Dairy Branch of the Dominion Dept. of Agriculture. Large numbers of cheese of this size were made at Finch every year and sold to eager purchasers, mostly the consumers themselves. Dr. J. A. Ruddick, commenting on this phase of the work of the Finch Station, points out that with a little pushing and advertising there is almost no limit to the extent of business that can be done with cheese of this class. It requires more labor to make the smaller than the regular size of cheese, but this to some extent is offset by the fact that the small cheese requires no bandaging, if a cold curing room is available. The Finch Station found no difficulty in obtaining from three to five cents a pound more than the current prices for a cheese of the Cheddar type. Dr. Ruddick believes that there is an opportunity for owners of many factories to very considerably increase their revenue by going into the making of this class of cheese.

The dirty egg is more or less an outcast, with no hope of improving its status. No matter how fresh and attractive it may be in other respects, it is in bad repute with the local buyer, and the stigma holds fast all along the line.

ORNAMENTING THE HOME GROUNDS

Whether one lives in a plain frame house or a more pretentious dwelling, he can have a very attractive home by planting the grounds with either flowers, shrubs or trees, or a combination of these. Nor does one need a large property to get good effects so long as he has a bit of ground a few rods in extent and sunlight four or more hours in the day. No one questions the advantages of a well planted home and few are satisfied with a bare unattractive property, but the planting season goes by year by year and nothing is done to make improvement. When the summer arrives and one's neighbors have fine shows of flowers, admired alike by themselves and those who stop to take a peep, it is as useless to regret one's oversight as if a selling crop had been omitted in the planting. The planting has to be done in spring or fall to get results desired. Some persons, it must be admitted,

reach a conclusion quickly and act upon the impulse, and their homes usually show the result by effective decorative planting. Most of us, on the other hand, must think the matter over before taking action. It is at this season one has time to reflect and to plan for the planting, whether it be in the fields, vegetable seeds in the garden, or ornamentals for home embellishment. In a broad sense ornamental planting is as important as the others. Not only does it add value to the property far in excess of the cost, but it tends to the enjoyment of a fuller life, for who does not enjoy beauty for itself nor respond in emotion to the commendation of admiring friends? This is the season for the study of the horticultural reports and bulletins for a knowledge of plants, shrubs and trees, and of the nurserymen's catalogue to find out when and how the best things may be obtained.

The Sunday School Lesson

FEBRUARY 1

The Vine and the Branches, John 15: 1-27. Golden Text—He that abideth in me, and I in him, the same bringeth forth much fruit.—John 15: 5.

ANALYSIS

I. THE VITAL RELATION BETWEEN JESUS AND HIS CHURCH, 1-6.

II. THE FRUITS OF THIS RELATION, 7-11.

III. INTRODUCTION—Jesus, continuing his great discourse in the Upper Room, now explains what is meant by his eternal presence with his people. He employs the parable, or rather the allegory of a vine and its branches, and says that his true followers will be to him what the branches or tendrils of the vine are to the main stock. He will live in his faithful disciples, and they will live in him. All their power, their capacity for service, their success will flow to them from him. As we might say, using modern language, the Church stands in organic relation to the living Lord.

In Matthew 28:18-21 the last commission of Jesus to his disciples is given in the words: "All power is given unto me, in heaven and in earth. Go ye, therefore, and teach all nations. . . . teaching them to observe all the things whatsoever I have commanded you, and, lo, I am with you always even until the end of the world." We may take the present allegory of the Vine and the Branches as unfolding to us what is involved in that commission.

In the Old Testament the figure of the vine is often used to picture the special relation of Israel to God. Israel is a vine-shoot which God has brought from Egypt, and planted in the Holy Land for his own gracious purposes, Psalm 80:8-19. Israel is God's experiment in producing the fruits of righteousness on earth, Isaiah 5:1-7; Jer. 2:21, etc. But now, as we see by the present lesson, the old Israel has given place to the new Israel. The Church of Jesus is the true Israel, the true vine of God. God has transferred to Christians the task of filling the earth with the fruits of righteousness.

I. THE VITAL RELATION BETWEEN JESUS AND HIS CHURCH, 1-6.

V. 1. Jesus, not in himself alone, but in union with his followers, is "the true vine" of God. The word "true" means that the old Israel possessed nothing that the new Israel lacks. The real fruitfulness implied in the conception "vine of God." Jesus and his followers, who are the true subjects of the loving favor of God, represent the real faithfulness which God seeks on earth. God is the keeper of the vine. He is watching over the success of his great new experiment in righteousness.

V. 2. If a branch or tendril of the vine is absolutely fruitless, there is nothing for it but to cut it entirely off. So Judas, for example, had to be dealt with. But even fruit-bearing branches need constant pruning in order to produce better results. And so loyal disciples of Jesus must expect discipline, purification, the loss of some things in order to gain other and more excellent things.

V. 3. This has already happened in the case of the disciple. "You are already cleansed or purified," the Master says, "through the word which I have spoken to you." In other words, Jesus, by his solemn teaching regarding the cross and the spiritual nature of the kingdom, has smitten to earth all their worldly hopes and expectations. Pride and self-seeking have had to go, but only that a new holy life may spring up in their hearts.

V. 4. Consequently, the one thing for disciples to do is to hold all the time to Christ. Just as a branch brought from the vine quickly withers, so all life and happiness dry up in a soul that loses contact with the Master. Surrender to Jesus, fidelity, unselfishness, are the conditions of spiritual success.

V. 5, 6. A disciple who holds to Christ produces great results in service, because Jesus is the source of "all power." We must think of our work as his work, and not forget him in the plans we make for self. Otherwise, failure and everlasting loss.

THE VINE.

The vine grows wild throughout the Mediterranean area, in Algeria and Morocco, in Spain and Italy and Greece, in Egypt and Syria. Like the olive tree, it is able to live through the long six months' drought of the summer. It is one of the three or four staple food plants of the Mediterranean world. They are mentioned in Psalm 104:15; they are corn (that is, wheat and barley, they ripen at the beginning of the drought, in the spring), and wine and oil (from the olive tree). The fruit of the vine is used in two ways, as raisins and as wine. But to-day the vine is not cultivated in Palestine as it was in Biblical times, for only Jews and Christians make wine, and they are a minority in the land. Mohammed's followers are required to be total abstainers. In Old Testament days, Palestine was a great wine-producing country. Joseph and Israel are compared to flourishing vines, Gen. 49:22; Psalm 80:8. When a prophet had a vision of happiness and peace of a better day, he saw every man sitting under his own vine and under his own fig tree, Micah 4:4; Zech. 8:10. On the other hand, men knew grape vines that produced sour grapes. When Israel was unfaithful to Jehovah, she was compared to the wild grape, Isaiah 5:2; Jer. 2:21.

The Finch Dairy Station.

The Finch Dairy Station, owned by the Dominion Dept. of Agriculture and operated under the direction of the Dairy Commissioner, has been disposed of and will no longer be operated as a government factory. This station, acquired in 1912, it is believed has fulfilled its mission of demonstrating the advantages of a well-conducted factory, equipped to take advantage of the best market for cheese, butter, milk and cream. During its years of operation many experiments and investigations relating to the manufacture of butter and cheese were carried out. New processes and appliances were demonstrated and the dairying industry of the district in which it was situated has been greatly improved.

In announcing the transfer of this plant to private ownership, Mr. J. A. Ruddick, the Dairy and Cold Storage Commissioner, stated that the station from the beginning to the end has cost the country not a single cent and its final disposal leaves a balance to the good. The accounting during all these years has charged the institution with all expenditure, including the price paid for the two old factories, the compensation to another factory in the neighborhood that was closed, and every item of expense on both capital and maintenance account either for ordinary operation or for experimental work.

The factory began in 1912 with the making of cheese principally, with a small amount of butter. The following year a beginning was made in the selling of cream and a little later milk also was sold. The receipts of milk the first year amounted to

Souls that lose contact with Christ are no better than the rubbish of a yard, with which people can do nothing but burn it.

IV. THE FRUITS OF CHRISTIAN LIFE, 7-11.

V. 7. Abiding in Christ means letting Christ's teaching have its proper place in our life. When we do so, it makes prayer for great things possible. Only an obedient, consistent disciple can truly pray for the great things, but such a disciple will always be sure of an answer. Thus praying prayer is the first fruit of result of abiding in Christ.

Vs. 8, 9. The next result will be the consciousness of the Saviour's love. The Father in heaven is glorified when the followers of Jesus give evidence of faithful service, and the love which flows from him to Christ will also descend in blessing on the faithful disciples of Christ. One object of disciples will be to maintain an unclouded sense of the love of Christ in the heart.

V. 10. The disciple will always have this unclouded sense of the Saviour's kindness if he observes his commandments, that is, if he is earnest, loving, unselfish, patient, kind.

Vs. 11, 12. Another result will be the joy of the disciples. Christ has spoken these words of warning and encouragement in order that his followers may possess the same delight in the Father's will as he does. To experience the joy of a task we must work at it, and so it will be in Christ's service. Jesus does not wish his disciples to face the tasks of life with something less than love, joy, and peace in their hearts. He wishes them to be endowed to the fullest extent with the best that God can give. Well, they must keep his own supreme example of love before them. This alone will keep them toned-up and efficient for that which life shall ask of them.

Vs. 13-17. That what love can compare with Christ's in giving his life for men? He has done everything for his disciples, and so shown them to be his "friends." Therefore, he depends utterly on their understanding and their sympathy. He has not treated them as "servants," who must be told everything that they are to do. He expects them as friends, trusted confidants, to know their Master's will, and to make themselves responsible for its execution on earth. Let them remember, finally, that their strength is not in their choice of him, but in his choice of them. He has chosen them to produce results which, but for their fidelity, could never come into being. This should be a solemn thought in all future days.

Little over two million pounds. By 1919, almost five and a half million pounds had been received, and last year, 1924, no less than 11,318,616 pounds of milk were handled. During the thirteen years of operation the output of the station was 1,519,828 pounds of cheese, 252,382 pounds of butter, 1,343,882 pounds of cream, and 3,525,305 pounds of whole milk. The total amount of money paid to the patrons during this time was \$1,087,240.98.

A Serious Poultry Disease.

A contagious disease known as European Fowl Pest has been found attacking poultry in the States of New York, New Jersey, Pennsylvania, and Connecticut. In order to keep the disease out of Canada an order has been issued by authority of the Animal-Contagious Diseases Act to prohibit the importation into Canada of live chickens, turkeys and geese from these states unless accompanied by a certificate from an officer of the United States Bureau of Animal Industry, to the effect that the birds covered by such certificates are free from this or similar contagious diseases of poultry and have not been exposed to infection. The prohibition was brought into effect on the 5th of January.

The men in a certain township had a picnic in the dead of winter, and got a lot of fun out of it. The spot they selected was down on the creek, and the ice was a foot-thick. Before they had their stories all told, they had stored away ice enough to last all summer. They chose a very good time for their picnic; but picnics are in order most any time of the year, if we set out about it.