

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 \$30; 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 alleyways 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 dissembling. 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 axles 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 or 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 fellos 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.

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 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, 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 hardiest 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 the Finch every year and sold to eager purchasers, mostly the consumers themselves. Dr. J. A. Riddick, 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. Riddick 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.

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.

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 only the semblance or shadow of 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 fruitfulness 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 been laid 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 broken from the vine quickly withers, so all life and happiness dry up in a man who loses contact with the Master. Surrender to Jesus, fidelity, unselfishness, are the conditions of spiritual success.

Vs. 5, 6. A disciple who holds to Christ produces great results in service, because Jesus is the source of our "all power." We must think of our work as his work, and not forget him while we make for ourselves. Other-wise, failure and everlasting loss, *little grapes, 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. Riddick, 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

POULTRY A HEALTHFUL FOOD

Physicians say that of all the meats, poultry meat is the most healthful. But in order that the meat may be more tender, no fowl should be cooked and placed upon the table the same day it is killed. It will require at least 24 hours for the muscles to relax. The old country way of running out in the barnyard to kill a chicken for dinner, simply because the minister made his appearance all of a sudden might be well enough for the minister, but not very appetizing for the old folks with poor teeth and an expert knowledge of what quality is in a carcass.

FATTED FLESH IS DESIRED.
There is a marked difference between white and dark meat. The former has much less fat, and a correspondingly large quantity of protein. The dark meat has a much larger proportion of meat bases, but as these bases are often considered of little value, it is to be seen that the white meat is to be preferred to the dark.

While still young, but full-grown, the chicken is best suited for food. As it grows old the flesh loses its flavor and increases in toughness.

The reason why fat birds are better than unfatted is that globules of fat are distributed throughout the muscles, displacing to a considerable degree the moisture found therein. The bulk is not only therefore increased, but also when the flesh is cooked the fat does not evaporate to the same extent as water, but melting, softens the tissues, making it more digestible and finer in flavor.

Well-grown birds with good-sized masses of moderately fat flesh are more economical than either young or over-fattened ones. At ordinary retail prices full-grown fowl is the only poultry which compares in real economy with the cheaper cuts of beef and pork. But young chicken, medium-sized turkey, goose, duck and guinea fowl are often as economical as the more expensive grades of other meats. Some full-grown birds can, by proper cooking, be made to equal the meat of young fowls.

TESTING THE AGE OF POULTRY.
One way of testing the age of a dressed poultry is to take the end of the breast-bone farthest from the head between the thumb and finger and attempt to bend it to one side. If it bends easily, the bird is very young (the same applies to a green goose). If the bird is a year or so old, the bone will be brittle; and if the bird is old, the bone will be hard to bend, and is apt to break.

The feet of freshly-killed poultry fell moist, soft and limber, and if the head is allowed to remain on the carcass the eyes will look full and bright. As the fowl stales the eyes shrink and the feet become hard and dry. If the feet show a bright, smooth surface, it indicates young age; but when the feet are shriveled it shows the fowl is old. If the body turns greenish and dark, decomposition is under way.

The feet and bill of a young goose are yellow, but if the bird is old its feet and bill will be reddish in color and bristly. If the feet of a dressed goose are not pliable, it indicates the bird has been dead a long time.

The flexibility of the windpipe in ducks and geese denotes youth. When the bird is young the windpipe may easily be squeezed and moved; in old birds it is rigid and fixed.

Turkeys under a year old have black feet. From then on, up to three years of age, the feet become pink, and after that they gradually turn gray and dull.

In squab pigeons the flesh looks whitish, as seen through the skin, but in older birds it becomes more and more purple. Older birds, too, have red feet.

"Just a Nail."

Did you ever see an old bent, rusty nail lying in the road? Of course you have. And have you ever stopped to think what trouble it might cause if it is left there? When the road becomes muddy a vehicle might run over it and turn the point up; the mud will hold it in this position, perhaps a horse may step on it and get it into his foot, lose months of work or possibly get lock-jaw and die. Or a child may be walking barefooted and tread upon it, and the injury may prove fatal. A doctor may be called upon to come quickly to attend to some very sick young man, perhaps a member of your own family, and be delayed by the nail getting into his tire, or you may get it into your own tire and have an hour or so of unpleasant work.

A little trouble removing it may save you or your friends a lot of trouble later on.

Bristles.
Wheat is about equal to corn for feeding swine. Oats, if ground and hulls sifted out, is one of the best grain feeds for little pigs.

Alfalfa hay, fed in a rack, is splendid for wintering brood sows. The last cutting is preferred.

Too much bedding in the hog house causes the hogs to sweat badly. There should be just enough to keep hogs from piling up.

Always figure on having hogs ready for the highest market of the year, then sell when ready. After a hog is finished, gains in weight are slow and costly.