EFFICIENT FARMING

Storing Vegetables the Right Way.

There are three kinds of storage in general use for root crops: 1, specially built cellars; 2, cellars under residences; 3, field storages.

Where the total amount is likely to average more than 100 or 200 bushels annually, the specially built cellar is recommended. For a smaller amount, the average house cellar will answer. Field storage is recommended only for special conditions and where neither of the other methods is available.

Cellar under residence: In modern houses where part of the cellar has been specially built for storing vegetables, results are satisfactory. However, some farmhouse cellars are not adapted to this purpose. Some have no drainage and water accumulates, often to considerable depth. Quite a few have no ventilation other than the windows; as a result the air becomes stagnant, decay organisms become numerous, the temperature is unequal and variable, and conditions in general are more or less unsanitary.

If the cellar contains a furnace the air is sure to become too dry during the colder months. A heavy shrinkage of the vegetables results, with a consequent loss in quality. Where part of such a cellar can be partitioned off and fixed up like a specially built one, results are quite as satisfactory.

Field Storage: This consists for the most part of deep pits dug in the ground, lined with straw on which vegetables are piled. Over the top is put more straw and then a light covering of earth. As the season advances more coverings are added until there is sufficient protection from the coldest weather. Such pits must be placed in a light soil where the drainage is good, and ventilation should be provided where the quantity stored amounts to more than ten or fifteen bushels. Cold-frames and hotbed pits may be used in this way.

Such field storage can be used for vegetables like potatoes, beets, carrots, etc., that will keep until spring. They are not suitable for large quantities where the pits must be opened during the colder weather.

Specially built cellar: Specially built storage cellars for fruits and vegetables are best built wholly or at least partly underground. Fruits, potatoes and other root crops are kept best at a temperature of 40 deg. F.; the normal temperature of the ground is approximately 50 deg. F., which is too high for ideal storage conditions. Consequently, a cellar or cave, even though wholly underground, with no cooling system is generally too warm.

An air-cooled cellar is equipped with ventilators at the top where the warm air will pass out; these ventilators are equipped with dampers which can be opened or closed as conditions warrant.

Cold-air intakes open into the cellar from the side walls just above the floor lines. These intakes can be made of six-inch sewer pipe joined one above the other just outside or in the wall. A damper is attached at the top so that the amount of air coming in can be regulated.

To secure the best circulation there should be false floors and walls made of 2 x 4 joists and studs covered with 1 x 4 boards nailed one inch apart. These will let cool air pass underneath and on all sides of the contents, thus cooling the stored vegetables.

During the fall months when crops are stored, the night temperature drops near or below the freezing point. If the cellar is opened up during the cool nights, cold air will come through the cold-air intakes, and the warm air passes out through the ventilator. In this way the air can be changed many times during the course of a single night, thus thoroughly cooling the cellar before morning. Early in the morning the cellar should be closed and not opened until the weather will permit without again warming up the interior. In very severe weather the cold-air intakes should be closed.

Vegetables should seldom be placed directly upon the floor of the cellar, as this prevents the proper circulation of air. False floors should be provided. These are raised two or three inches off the bottom and can be made of three or four-inch slats spaced one inch apart, placed on pieces of 2 x 4. Upon these false floors the vegetables are placed in bins, racks or crates, according to their particular need.

The size of the bins may be regulated according to the convenience and the space available, but the depth should be limited to three or four feet. The warmer the storage room the less should be the depth of the pile. If the bulk is too large, heating may result which will start new growth or cause the vegetables to mold and shrivel. If the depth must be greater than three or four feet, place slatted ventilation shafts up through the piles of vegetables.

Racks: These generally consist of a series of slatted shelves built into one side of the storage room. They are for such vegetables as cabbage, squash or onions, which can be stored only in small quantities and require better circulation of air. Such racks are usually about three feet square and placed in tiers from six to twelve inches above each other. If they are made to pull out like a drawer they will be much more convenient.

Crates: Many packages such as barrels, vegetable boxes and slatted bushel boxes are successfully used. The small sized provides for sufficient ventilation and they may be tiered up to any convenient height. The slatted crate is more desirable than the other kinds.

Storage for Different Crops.

Beets: The best size for table beets which are to be stored varies from two to three inches in diameter. The tops are twisted off by hand, the beets are dried in the air and immediately stored. If the leaves are cut off the stems should be left a half inch or more long, as there will be less evaporation and they will cook better. Small quantities can be kept in sand where they should keep fresh until May.

Cabbage can be stored in two ways. Where the heads are solid and well matured, remove the roots and most of the outer leaves. Place the heads on racks or two or three deep in bins. Ventilation should be ample and the room kept as cool as possible. If the temperature runs much above 40 deg. F., decay will begin. Split heads or those showing signs of rot should not be stored.

The second method is to pull up the cabbabe, roots and all, and place the heads upside down in a regular order in the field. Place the heads close together in long rows, usually two or three wide with a second row resting on top in the interspaces. Throw a light covering of five or six inches of earth over them, leaving just the roots exposed. Let the cabbage remain untouched until the ground freezes. It should be taken out in November, the heads removed, and stored in the cellar as described above.

Carrots: Large quantities should be handled the same as beets. Small lots are best kept in moist sand.

Onions: These should be pulled and left in the sun to dry. Twist the tops off, place the onions in slatted crates and store where they can get plenty of air. They need a fairly low temperature but less moisture than the root crops. Where the temperature is above 50 deg. F., the onions will soften or start to grow.

Parsnips: Dig in the late fall and store like beets or carrots. Small quantities are best stored in moist sand as they remain fresher. They may also be left in the ground over winter and dug in the early spring before growth starts. Freezing in the ground does no harm and is claimed by some to improve the quality.

Potatoes: This is one of the easiest crops to store. Quantities up to 200 or 300 bushels can be easily kept in a farm storage cellar. Place them in bins from four to six feet deep and of any convenient length. Shut out light to prevent excessive sprouting in the spring. Handle tubers with care when digging so as not to bruise them, and throw out all that show signs of rot. Potatoes freeze at about 28 deg. F., but it is best to keep the temperature above 32 deg. F.

Pumpkins: These should be removed from the vines when ripe; leave the stems on. Store in a warm room where the air is dry. An attic, a shed or a loft in the barn where they will not freeze will do. They may be placed in the racks with the other vegetables when it is not intended to keep them longer than the holidays. They should be examined frequently and those that show any signs of rot removed.

Tomatoes: It is often possible to prolong the season of ripe tomatoes until Christmas, if proper storage precautions are taken. The vines are very sensitive to frost and should not be allowed to suffer a heavy freeze. The temperature should be watched and the vines pulled just preceding the first killing frost. Hang the vines by the roots to the ceiling of the storage cellar, or in any convenient place where they will not get too cold. The tomatoes will gradually ripen.

Turnips: Treat the same as beets.

Sneezing Bad Omen.

Sneezing, from remote times, has been held ominous. Our forefathers went to bed again if they sneezed while putting on their shoes. A sneeze to the right was deemed lucky; to the left of evil portent. To sneeze near a burial place was unlucky. Tradition has it that at first sneezing was a fatal sign, every human being sneezed but once, and then died, but Jacob petitioned the Creator to remove the sneezing ban, and succeeded. Thence arose the once universal custom of saluting a sneezer with "God bless you," or "May you live long." In an old book, "The Code of Conduct," it is directed that "if his lordship sneezes ye art not to bawl out, "God bless you,' but bow to him handsomely." All over the world the sneeze was recognized. Whole nations were under orders to make exclamations when their king sneezed. Sneezing was believed to be a sure cure for coughs, and was also looked upon as a sign of sanity.

GASOLINE 4c. per GALLON

YOUR MOTOR FUEL PROBLEM IS SOLVED

and every trace of Carbon removed by

MIRACLE MOTOR GAS

The scientific gasoline intensifier, vigorizer and de-carbonizer now on sale at first-class garages and accessory stores. 100 gallons of gasoline at market price plus 100 Miracle Motor Gas Tablets at $1.25 per hundred equals 133 gallons of gasoline. Money back if not satisfied. Send $1.25 for 100 Tablets. Use 50, and if not absolutely as represented return the remaining 50 and we will send you $1.25 by first mail.

Garage Owners' Accessory Stores in each town or village given exclusive sale. So write at once for full particulars and satisfy yourself that Miracle Motor Gas is proving a veritable gold mine for exclusive agents.

Free Literature Mailed on Request.

CANADA AUTO ACCESSORY CO.
Exclusive Distributors
26 QUEEN ST. EAST - - - TORONTO

McCRIMMON'S ANTISEPTIC COMPOUNDS

McCRIMMON'S Mouth Wash

The universal mouth Antiseptic for Pyorrhoea and sore gums.

Heals and hardens bleeding gums at once and tightens the teeth.

McCRIMMON'S Mouth Wash deodorizes all decomposed matter and makes the mouth fresh and sweet.

A BOON TO SMOKERS

McCRIMMON'S CHEMICALS LIMITED
Manufacturing Chemists
29 RICHMOND ST. E
TORONTO

Send Yonr Boy to Agricultural College.

To Win on a Farm Requires a Mental as Well as a Physical Education.

Probably you can mention a dozen or more of the older generation of farmers who have never seen an agricultural college and yet are successful farmers. They have succeeded without special training. But if you consider carefully, perhaps you will find that they made needless blunders and experiments, costing them both time and money, before they found the right way.

These men might have been even more successful if they had had the advantages of special training. They have probably done the very best that they could with their limited knowledge, but undoubtedly they, themselves, are the strongest advocates of the agricultural colleges.

Besides these men who have succeeded without special training you probably know of a much larger number of untrained farmers who failed —undoubtedly in the majority of cases because they lacked fundamental knowledge.

If, then, a lack of knowledge is a great handicap to successful farming, the next question is: Will the agricultural colleges supply this knowledge? If the boy will do his part the college education will not only supply the fundamental knowledge but what is still better, will also teach him the proper application.

It is impossible to do any farm work intelligently without employing some scientific facts. It takes scientific knowledge to feed hogs—if you do it intelligently. Many farmers use scientific principles in their work every day and never know that they do or, in some cases, why they do it.

You believe in milk testing, don't you? And in soil analysis? In fertilizing? In ventilation? In sanitation? In veterinary services when needed? These are a very few of the every-day things which are based upon chemistry.

You must believe in an intimate knowledge of plants—corn, wheat, oats, etc.—if you are a farmer. And also in a knowledge of animal life. Biology, the science of life, tells about these things. And so with the rest of the sciences studied in college.

The agricultural colleges show how to apply the truths drawn from the sciences and hitch them up with up-to-date methods and the latest apparatus. Dairying, animal husbandry, farm mechanics, buttermaking and all the rest of the courses are based upon science. These courses are not merely related to agriculture—they are a part of it. Your boy at an agricultural college learns the best way—the most efficient way—to do these things. He does his experimenting at the college —not on the farm where experiments are expensive. He does it under expert supervision enabling him to do it correctly and to draw definite conclusions from his work. He learns exactly why he does certain things to get certain results.

The agricultural colleges are as a rule well equipped. A good plan would be for you to visit your provincial agricultural college and see the excellent equipment. Model horse and dairy barns, model hog buildings, blooded animals, the latest apparatus in use in all lines—all these will convince you that your boy will have the advantages of a very practical education.

So far I have mentioned only utilitarian reasons for sending the boy to college, but there are many other reasons for doing so. The agricultural colleges teach other subjects besides those directly concerned with enabling one to make the farm earn "A Good Living and 10 Per Cent." If one should go to college and study only those subjects concerned with earning a living it would be like a person sitting down to a table laden with a bounteous dinner and eating only sufficient to sustain life. A person's general culture should receive some attention. A study of history and literature, and possibly one foreign language, is wonderfully worth while.

Right here I'd like to add some more subjects like economics, sociology, psychology, etc., if I had space to explain definitely their value to your boy. But if he comes home and tells you that he's studying some of them, don't object—they're all right for him to study.

When your boy graduates from an agricultural college what results have you a right to expect of him? First of all a college-trained farmer is an intelligent, scientific farmer using the most up-to-date methods and acquainted with the best apparatus of his occupation. And from this it follows that he is able to make a financial success of his farm. Second, he is able to make the most of himself in his life-work—he fills his job about 100 per cent. efficiently. Third, he has the ability to appreciate and enjoy farm life—the ability to be happy in his work. Fourth, he is a well-educated citizen, and therefore a good citizen who can think for himself.

I hear some one say: "Well, that sounds all right, but right over two and a half miles north of here is So-and-So who went to college—and look at his farm. If that's how they train 'em I don't want my boy to go to college." The answer is that you can find failures in every profession—lawyers, doctors, dentists, etc.; but for every failure of a college-trained man fifty successful ones can be named. The failure is the exceptional case—the successful man is the rule. Colleges are not maintained to train men to be failures. If a comparison of college-trained farmers is made with non-college-trained farmers under similar conditions, then there is some basis for such a statement. But if you will make such a comparison you'll scarcely have an objection to college.—C. H. S.

A farmer to be a real success must believe in farming as one of the best callings in the world.

Soil may not think, but it is quick to respond to the treatment we give it, no matter whether good or bad.

The Sunday School

INTERNATIONAL LESSON
SEPTEMBER 28.

Jesus Our Saviour and King—Review. Matt. 21: 1-9, 15, 16. Golden Text, Matt. 21: 9.

The first lesson for the quarter now ending gave us its central and prevailing theme: The Church, Its Life and Work. The review may dwell upon this theme, and the questions raised may be of the nature and meaning of the Church, its membership, its sacraments, its helpful and inspiring fellowship, its private and public worship, its work of winning souls and spreading the Gospel throughout the world, its interest in every good word and work and especially in movements for social betterment, its ideals and laws, its hope of the life that is beyond, and its guide-book of faith, the Holy Scriptures.

It is well that we should seek to gain a true conception of what the Church is. We must avoid the two extremes as often met with in these days, the one of identifying the Church with some special form or organization or institution, and the other of disregarding or making light of all forms and all organization. The simple, primary fact is that the association, or fellowship, or companionship and co-operation, of those who believe in and follow Jesus Christ makes His Church. Where two or three are gathered in His name He is present in their midst, and that is all that is essential. In the time of the apostles and the first preaching of the Gospel we read of "the brethren" (Acts 1: 15), of them that received the apostles' word and continued in their teaching and fellowship (Acts 2: 41, 42), of them that believed and were together and had all things common (Acts 2: 43, 44), of the apostles' "own company" (Acts 4: 23), who were "of one heart and soul" (Acts 4: 32), and of the increasing number of disciples (Acts 6: 7), who wherever they went abroad preached the Gospel and formed communities of those who believed (Acts 8: 4), which communities were at once called churches, or, as a whole, the Church (Acts 9: 31 and 13: 1). So it has been through all the centuries and in every land, since those days. They who believe in and follow Jesus come together that they may help each other and may further extend His gospel.

Baptism became the sign of formal entrance to the Christian community, and the Lord's Supper the symbol and formal recognition of its fellowship. In its meetings men talked and prayed together, read the Holy Scriptures, to which were now added the Gospel narratives and letters of counsel and instruction from the apostolic leaders, sang hymns of praise and listened to words of instruction or exhortation. In such meetings were planned the first great missionary enterprises, under the inspiring guidance of the Holy Spirit (see Acts 13: 1-3), and to them were welcomed the returning missionaries, who "rehearsed all things that God had done with them."

The Church speedily found, as it still finds, its distinctive work to do. It provided food for the hungry and clothing for the poor in daily ministration (Acts 6: 1 and 9: 36-39); it proclaimed the gospel of God's love in Christ and bore witness to His resurrection. The missionaries of the Gospel went abroad to many lands, founding churches, teaching in schools, rebuking crime and superstition and idolatry, endeavoring to establish clean living and pure morals and right and just relations between all classes. Their work was mighty in the overthrowing of ancient strongholds of error, but in the highest sense constructive in that it aimed to build and to sanctify the life of the home and of the state.

Above all, the Church with its great evangel led men to faith in God and gave them hope for the future. The common things of life were glorified in its teachings and given a significance of immortality. Men were enabled to see life in its relation to eternity. The gospel of the Church demanded the making the most of this life in the light of that which is to come. It broadened human sympathies and broke down ancient barriers or race and creed and color, establishing a real brotherhood. It put master and slave, rich and poor, high and low, great and small upon an equality in the sight of God, as brothers beloved (Philemon 16). It pointed to the consummation of human relations in a holy citizenship, a "household of God" (Eph. 2: 19-22), which is the Church's ideal in all ages.

The Church has the best things on its program. The League of Nations was planned by it centuries ago. It stands for justice to all. Its sympathies are with the poor and with all who suffer. The Church cares for the souls of all. Can any one of us afford to remain outside its fellowship and its activities?

One of the fine things a young farmer and his wife did last winter was to send a man and woman they loved a big ham and a nice strip of home-cured bacon. How good it tasted to those folks who had none and were just hungering for a bit! And what they wrote back to the young folks on the farm tasted sweeter than the bacon and ham ever possibly could.

5½% INTEREST
PAYABLE HALF YEARLY
Allowed on money left with us for from three to ten years.
Write for Booklet.
The Great West Permanent Loan Company.
Toronto Office 20 King St. West

STORM WINDOWS & DOORS

SIZES to suit your openings. Fitted with glass. Safe delivery guaranteed. Write for Price List [L]. Cut down fuel bills. Insure winter comfort.
The HALLIDAY COMPANY, Limited
HAMILTON FACTORY DISTRIBUTORS CANADA

Bedtime Stories

Not a Soldier.

Here I stand in the early fall, straight and stately and fine and tall! I'm quite a riddle, as you will see, for, though I stand so fair and free, I cannot move a single peg—because, alas! I've just one leg. I must have been to war, you say? I wasn't in it, though I helped to win it. (You see, our family's born this way.) But I'll confess, now,—since you guess,—that they called me a kernel one fine day. My uniform's the richest green, all trimmed with silk of golden sheen; and there's a tassel on my hat. But I'm not a soldier, for all that. One of my habits odd appears: each year, for half the summer, whether it's cool or hot or rainy weather, I wear green mufflers on my ears. My trusty blades are full in view; my pistils, too. Does that puzzle you? But still I'm not a soldier true. I have some powder, but it's gold, and very precious, I am told. In fact, it really helps to make the bread the cooks and bakers bake. Yet, though my heart is true and right, I never wished to go and fight. Another funny thing I've found: just now I'm standing in the ground; but some bright day, in some strange way, I shall be ground myself, they say. And queerer still another thing: my family and I are worth a small-sized fortune in the earth; often a thousand dollars will be offered for us, cash, and still, sooner or later, mark my words, I shall be had for just one mill!

What am I?

Poultry

September is a good time to look around for new blood. An extra male or a few yearling hens purchased now can be secured at a better price than later on. New stock may be the means of preventing troubles that are sure to follow too close breeding.

The arrangement of proper winter quarters is worth considering. Steps must be taken that will mean comfort. It must be borne in mind that overcrowded flocks are not comfortable.

Advantage should be taken of the fine weather in making repairs, putting on new roofs and cleaning up the premises. No time should be lost in getting ready for winter, which will soon be here, and which may be a severe one. The poultryman who prepares for the worst is the one who is never caught napping.

The present generation of poultrymen does not seem to believe in whitewashed walls in the hennery. I do. Whitewash, especially when some good disinfectant (such as a coal-tar product) is mixed with it, not only gives the premises a cheerful appearance, but is a valuable vermicide and a germ killer. It is impossible to be too clean.

The Sliding Tumbler.

The following trick is sure to mystify people until it is explained; then, like many another, it becomes extremely simple. The apparatus consists of a glass tumbler, a bit of candle and a pane of glass or a slab of marble. Those are shown to the company, the tumbler is inverted on the glass or marble, and anyone present is invited to set the tumbler in motion with no other means than the flame of the candle.

It seems impossible; but this is the way to do it: First, the glass or marble should be slightly inclined by placing a small object underneath one edge. While the attention of the company is distracted from what you are doing, moisten the rim of the tumbler with oil, if possible, although water will do almost as well. Now light the candle and place the flame close to the side of the tumbler. The tumbler will soon begin to move down the inclined plane and will fall off unless you stop it.

The movement is caused by the fact that the air within the tumbler expands when it is warmed by the candle. The film of oil or water between the rim and the sheet of glass prevents the heated air from escaping, and the expansion of the air raises the tumbler so that its edges rest very lightly on the glass surface. The lessened friction allows the tumbler to slide.

Luck always lags; labor runs forward. Luck lies abed and wishes; labor swings the hammer at six o'clock in the morning.