

# Soils and Crops

Address communications to Agronomist, 73 Adelaide St. West, Toronto

## WINTER IS THEIR VACATION.

Winter time is usually the rest time for the great majority of farmers. These take their summer vacation in the winter. Too often this "vacation" is continued until the spring work drives them to the field.

Tools, implements and machinery are all too often just as, and where, they were unhitched from last year. Many less careful farmers have left most of their implements out in that tool shed which has the sky for a roof and possibly one or more barbed-wire fences for sidewalls! Such implements have depreciated approximately seven per cent. since last year. Pretty heavy tax, isn't it? And they are certain to receive no attention until the day next spring or summer when the rush of work demands their immediate use. For the type of farmer who abuses his implements this way there is little hope of improvement. This story is not written so much for his benefit as for the farmer with a good enough business head on him that he wants to develop more efficiency in his business as a rural gentleman.

### PUT WORKSHOP IN ORDER.

It is high time now to bring that vacation to a close. The first thing to be looked after—if it needs it—on the well-regulated farm in preparation for putting the implements in A-1 shape for spring, is to have a workshop and have it in order. Frequently I go into the workshop on a farm and find that it has become a catchall—just a junk shop, having the accumulations of scraps, and broken things for the Lord knows how many years! The first thing that should be done in such a shop is to clean house. Load all of the scrap and junk onto the wagon or truck and haul it to the junk dealer. He needs it in his business. You don't need it. I need not suggest that perhaps there is enough other scrap around after you have taken out bolts, etc., which may be useful, to make a full load.

Get all the working tools together and fix them up, getting every tool in good working condition—files and saws, grinding wheels, axes and chisels, draw out cold chisels, pliers and crowbars, get a rasp; and some new files, etc., and have a regular place for every tool. Get a stove in it to have a floor space large enough to hold a tractor clear—in short, make your shop a real business unit in your farm business.

### OVERHAUL ALL IMPLEMENTS.

As you think it over you will recall that several of your implements need repairing, or worn or broken parts, need replacing, or the implement needs a general overhauling. One day in harvest time last year I called on a good farmer friend. The knocker on the binder was causing a lot of trouble. He had monkeyed several hours with it and then had to stop the harvesting and drive fourteen

## POULTRY.

A cellar with a little ventilation is an ideal location for an incubator. The temperature will not vary greatly and the floor is free from jarring. If the machine must be operated upstairs do not have it close to the stove. Avoid heavy walking and slamming doors. Keep the room temperature as uniform as possible as the outside air is constantly passing through the incubator. Regulation is difficult if the room is hot during the day and cold at night.

Chicks often knock down the thermometer at hatching time. Then you have to run the machine by guess work as the chicks are emerging. If it pays to wire the thermometer to the tray where the eggs are turned to the last time. Then it will stay upright and you can keep the machine from becoming four or five degrees too hot at hatching time.

The air around an incubator is improved if you use high-grade oil and have a fresh wick for each hatch. The burner can be boiled in hot soda water to remove gummy accumulations. The wick will turn easily and the flame is more easy to regulate.

Do not worry too much if a few chicks die in the shell. I understand many experienced poultrymen are satisfied if they obtain close to fifty per cent. hatches as an average for the season. Of course, the fertility of the eggs is much higher and it must be that even the best of poultry keepers cannot be sure of hatching every egg.

Breeding stock will produce a larger per cent. of fertile eggs if they are allowed free range as soon as weather conditions are at all favorable. Balanced rations in the winter laying house are necessary, but fresh green grass, angleworms and exercise on the soil is the original formula for poultry vigor and thrifty chicks.

### Size and Shape of Fields.

The disadvantage of small fields on a farm is a hardship that any efficient farmer finds it difficult to overcome. Few farmers try to check up on the size of their fields. They depend because of the small size of their fields on the man's work with

implements to get a new part. Said it both-ered last year. He would doubtless have been \$20 ahead of the game if he had overhauled the binder last winter and replaced the part which his memory said had caused trouble before.

Many an implement is allowed to rot or rust down just because some part has failed and the farmer thinks only in terms of what it would cost to load the implement, haul it to town and pay the blacksmith and woodworker good high fees for doing the job.

But, with the exercise of a little ingenuity and a small outlay for parts, the work can be done at home with the farmer actually earning mechanics' wages! You can pay yourself fifty cents to \$1 per hour for good, faithful work and thus get the tools and implements all ready for the season's work. How nice to earn mechanics' wages for those three or four weeks and stay right at home where you can stick your legs under your own well-loaded table and tuck yourself into your own woolen blankets at night!

Well, pull the tractor into the shop the first thing. If you are inexperienced get a neighbor who knows how to do it, and learn by acting as his helper. Overhaul the tractor, replacing piston rings and all other parts that are not giving 100 per cent. service. Grind valves, etc. Go over the gas engines with the same care. Every engine should be overhauled annually if it has much work to do. Don't neglect the truck and pleasure cars.

Then get the disc. More than likely this tool would be fifty per cent. more efficient if well sharpened. See that all bearings are in good shape. Go over all of the tools and implements with the greatest of care. Be as rigid in your service requirements as if you were a government inspector.

### PROFITABLE USE OF PAINT.

After all of the working and wearing parts of the implements and machines are fixed up properly, go over them with a heavy coat of good paint. Maybe some of them have gone so long without paint that two coats will be highly advisable.

Choose thoughtfully the color you want for wood and the one for metal work. Get good quality of paint. You may be surprised to be informed that you can sell good quality paint to your implements and machinery, when they need it, at more than \$24 per gallon!

What do I mean? Just this: Good painting of farm implements, when care is taken to get an ample supply of it into all joints, and especially where wood and metal work join, will prolong the life and usefulness of the implements sufficiently to repay at the rate of more than \$24 per gallon for the paint. Then the added pride and self-respect which well-painted implements give the farmer are of greater value than the actual increase in intrinsic value of implements.

different size fields is well illustrated by some data worked out with a group of farms. On eleven fields with an average size of 5.7 acres it was found that one man plowed 1.64 acres in ten hours. On fifteen fields averaging 15.2 acres in size, 2.08 acres were turned over in ten hours; in fields averaging 29.3 acres, 2.71 acres were plowed in a ten-hour day.

In other words a man did 27 per cent. more work in the medium than in the small size fields and 65 per cent. more in the large than in the small fields.

Applying the same yardstick to the cultivation of corn brought the same difference. Using a one-row cultivator in fields averaging 6.2 acres, a day's cultivation covered 5.3 acres of ground. In fields averaging 15.1 acres this same cultivator would tend 6.2 acres, whereas in fields 25.2 acres in extent, 9.1 acres were tended with the one-row machine.

These data lead to the question, especially if a man in a general farming system finds himself with a lot of small fields: "Can I afford to rearrange my fields and eliminate the extra work entailed in their plowing and cultivation?"

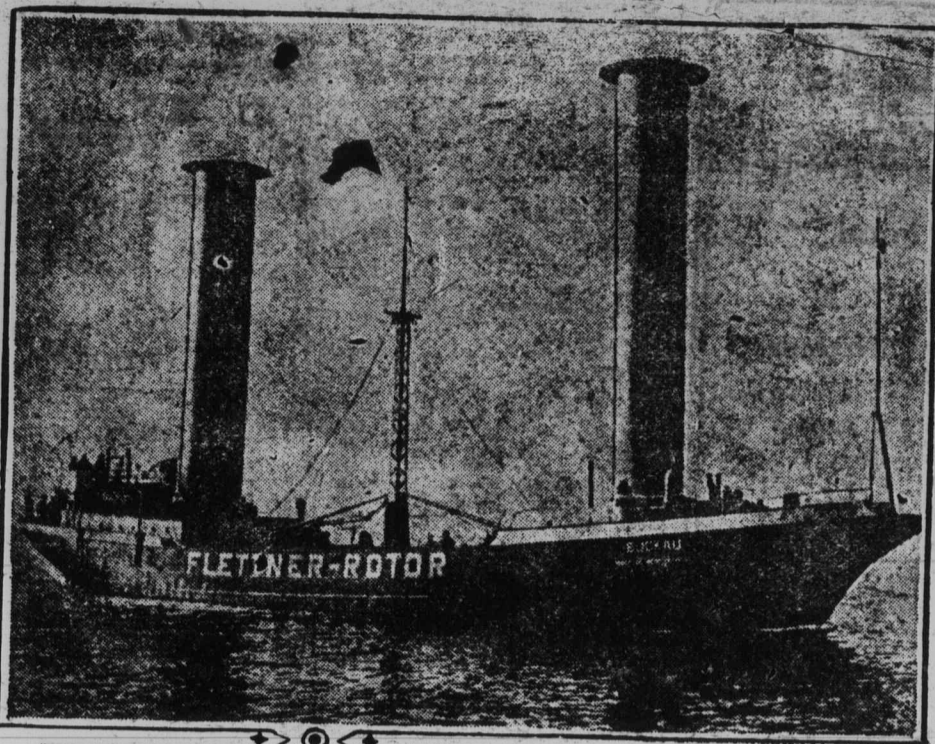
The answer to this question depends on the shape and contour of the farm, the condition of the fences and the farming system. Certainly every farmer should give the matter some thought if he has not already done so and when the fences rust out or wear out so reconstruct them as to make the fields larger and more economical-ly worked if it is possible to do so.

One very good farmer of my acquaintance has recently rearranged his fields so as to eliminate point rows. He finds that he can now do more work in less time than he did before. Incidentally he has enlarged and lengthened his fields somewhat in the process, thereby making his labor much more efficient.

In these days of high-priced labor on farms a factor like this is of much more importance than it formerly was.—F. S. P.

Courtesy is the quality that keeps a woman smiling when a departing guest stands at the open door and lets in the cold.

## WILL BE GIVEN COMMERCIAL TEST



### ROTOR SHIP TAKING CARGO TO ENGLAND

Anton Flettner's sailless wind rotor vessel, "The Buckan," has been chartered to carry a cargo of timber from Danzig to England. The strange craft has given satisfactory results in tests, but this is the first time it has come in competition with the regular sail or steam vessels. The Buckan is propelled by the action of the wind on large rotating cylinder masts. It is shown above together with its inventor and navigating officers.

## HORTICULTURE AND CITIZENSHIP

Some one has said that it is bad enough to be poor without having his poverty proclaimed to the world. All proprietors of fine-looking homes are not wealthy, but when a bare, unattractive place is observed one's pity is likely to be aroused for the unfortunate occupant. A half-hour's walk on the streets of a town or village, or a drive of a few miles into the country in almost any direction, may bring one face to face with homes showing widely varying degrees of beauty. What may be taken for an evidence of prosperity may be only the result of well arranged planting done from time to time at very little expense. Many a town has benefited permanently by a campaign of "paint up" and "plant up," and no one ever regrets responding to such an appeal.

A neat lawn and a few flowers and shrubs can transform a bare, unattractive place into a lovable spot of which every member of the family will be proud. Indeed it is largely the

planting about the homes of England that has created the charm so characteristic of that wonderful country. Whether it be the larger estates or the humble dwellings, the same appreciation of horticultural beauty is shown. With the aging of this country similar results may be looked for. In fact many sections, particularly those that have come within the influence of a horticultural society, show unmistakable signs of rapid advancement in home and town decoration. We have abundance of beautiful planting material proved by our Experimental Farms quite hardy, and soil and climate favorable for their highest development. All we need is a resolution to work out a planting plan before the arrival of spring, order the stock and have it put in at the beginning of the growing season. By this means many homes may be made more attractive and the reputations of the owners protected against the charge of indifference and neglect.—Canadian Horticultural Council.

### Hatching Eggs.

Breeding hens gave good hatching eggs when they were removed from the laying pens in October and placed on free range, where there was an abundance of green feed, so says Prof. W. R. Graham of the O. A. C. Poultry Dept. The hens were fed whole grain, mash, and given water to drink. They moulted quickly and, as was expected, egg production was completely stopped. These birds when placed in breeding pens in January gave excellent hatching eggs during the season. Birds with a ration in which there was plenty of clover leaves, some canned tomatoes and raw liver, gave fair hatching eggs, but they were not con-

stant, and, therefore not entirely dependable. There is now under way a series of experiments with sixteen pens, on as many rations, in the hope that some one may produce hatching eggs of reasonable value.

### Size of Flocks.

There is some inclination for farmers to keep poultry in a large way and moreover, a few would with very little encouragement, make poultry the major part of their farm activities. It would be better on the average, if the people increased their flocks gradually every year from say one hundred laying hens to one thousand laying hens, so says Prof. W. R. Graham of the O. A. College.



Here's a soldier who never answered the cook-house call. This stern-looking sentry was molded in the snow with the aid of a spoon and knife.

## THE CHILDREN'S HOUR

### SALLY SQUIRREL'S VALENTINE.

It was the day before St. Valentine's Day, and, because Freddie Squirrel liked little Sally Squirrel very much, he thought it would be nice to send her a valentine.

Of course there were no letter-boxes in the woods, where Master Squirrel could mail the valentine but there was an old walnut tree with a hollow trunk and, as Sally lived with her Papa and Mamma in the top of that very tree, Freddie decided to place the valentine in the hollow trunk at the base where Sally would be sure to find it in the morning when she scampered down to the ground.

So, when evening came, he put on his little snowshoes, for a heavy snow had begun to fall, went out as he had planned and put the precious valentine carefully in the hole at the foot of the tree.

Now it happened that a naughty little Bunny saw what Freddie Squirrel had done and decided it would be great fun to play a trick on him. So he told a number of his little friends that Master Squirrel had put a valentine in the hollow trunk of the old walnut tree.

"Suppose we wait till midnight and then take the valentine and put a funny picture in its place?" Sally thought that Freddie did it to tease her," said this mischievous Bunny.

So they waited until they heard the old owl hoot twelve times and then they knew the hour was midnight.

The snow had been falling steadily for hours and was by this time quite deep.

The rabbits had no snowshoes and they found it hard work struggling through the deep drifts and by the time they reached the old walnut tree, some of them were quite tired and out of breath. They wondered if the joke really was worth so much discomfort.

Then they made an unhappy discovery. They hopped around the tree several times, looking for the hole, but there was no opening to be seen anywhere.

"Why?" said the naughty little Bunny, "I am sure we have the right tree! And I know there was a hole at the base, leading into the hollow trunk."

But the other bunnies were quite out of patience and began to grumble. "I don't believe he knows one tree from another," said one.

"I think he was trying to play a game on us," said another.

The upshot of it was that they all decided they had been tricked and they resolved to get even with the naughty bunny for playing a joke on them.

They caught him and rolled him about in the new fallen snow. They put snow down his neck and pelted him with snowballs until he was glad to run from them as fast as ever he could.

Of course, you know and I know, that there was a hole at the base of the old tree but the snow had drifted so deep that the hole was completely covered. Really none of them were very bright not to think of what had really happened.

The next morning, when little Sally Squirrel came scampering down the inside of the trunk, she was surprised to discover that the hole was closed and the base of the tree buried under snow. But she was more surprised and very much delighted to find her lovely valentine.

She never knew how near she came to losing it and that the heavy snow storm had been her friend and prevented the band of naughty bunnies from taking it away.

What Freddie did to the other bunnies later on is a story not to be told here.—Enos B. Comstock.

### How I Get More From Manure.

I am sure that I am getting more value from my manure supply than I did before I changed my methods of handling it. I have no manure shed, and it is not convenient for me to haul it to the field as it comes to me from the stables. Formerly, I piled it in shallow layers where it was most convenient. But, I observed when loading on the spreader that much of the horse manure was fire-fanged, and that it appeared to have little life. I then, upon the advice of the Agricultural Representative, piled it up near the barn with vertical sides. This pile was made as deep as it was convenient to pitch, and frequently I would tramp the pile down to make it firm. Built in this manner the manure would leach very little and the fire-fanging seemed to be prevented, especially where we mixed the manure from the horses and cows.—R. J.



Following the Style.

Rabbit—"Great scott, who are you?" Porcupine—"Why don't you know me?" Rabbit—"You are a porcupine, and I've had my quills bobbed—tee-hee!"

### An Honest Doctor.

"The thing I liked best about that doctor was—he was honest with me," said John Buck. "I tell you, it's rare to find a really honest doctor."

It is that so, I asked myself. John was recounting his experience with an eminent specialist whom he had consulted about treatments for his steadily increasing deafness. The specialist had bluntly told him that he'd better not waste his money on treatment for his trouble was incurable. And now comes John to tell me that it is rare to find a really honest doctor. Is that so, I ask.

I know doctors. I know a lot of them and I know them in a way that John Buck never can know them, stripped of all their airs and mysteries. And I say that it is not rare to find an honest doctor. John Buck might have gone to a doctor specializing in ear diseases, a man just as honest as the one selected, yet one whom cherished the belief that certain treatment, we will say aural massage, might do some good. The man could give John a number of expensive treatments, and honestly leave him as badly off in his ears as ever.

The rare thing in doctors is the one who is both wise and honest. That is the man you want for your family doctor. If you wait until emergency is knocking clamorously at your door your chance of getting the right man is very poor. Quite likely you will get one who is neither wise nor honest, but plenty such are now collecting a living from a long-suffering public.

Don't wait for the emergency. Look around you now, while all is calm and the whole family rests placidly unconscious of its poor health. Choose the doctor upon whom you would call with greatest confidence, the one in whom you could confide your family troubles, the one you could trust to take care of wife or little babe, the one you feel sure would be square. Then go to him and say, "Doctor, I'm John Buck. If ever I need a doctor you're the man. I shall depend upon you and you can depend on me."—Dr. C. H. Lerrigo.

### Experiments With Wheat.

A long series of experiments with wheat have been conducted at the Dominion Experimental Farm at Brandon, Man. A summary of the work performed is given in Bulletin No. 42, New Series, just issued by the Dept. of Agriculture at Ottawa. It is a bulletin from which wheat growers can gather a vast deal of information. The period covered extends from 1889, the first year after the farm at Brandon was established, to 1923, and the varieties tested number no fewer than 173. Besides recording the tests and their results, the bulletin deals with seed, frozen versus unfrozen, hand selection, home-grown versus changed, and control of smut; with seeding dates, rates and depth; with summer fallow and substitutes, including cultural tests; with cultural experiments, treatment of stubble land, treatment of sod land, preparation of seed bed, types of drills, cultural treatment to control rust, and cutting at different stages of ripeness; with manures and fertilizers, barnyard manuring, green manuring and commercial fertilizers; with rotation of crops, early rotations, rotations under test from 1910 to 1921, and with cost of production, wheat on summer fallow and with wheat on stubble land.

### My Chore Hours Are Shorter.

Although we are keeping the usual amount of live stock, which consists of about thirty hogs, having four brood sows, a flock of forty sheep and from ten to twenty head of cattle, the time required to do the chores has practically been cut in two by the simple method of putting in water tanks where each kind of stock can have access to it at all times, and by building self-feeders. I know that it is worth the time of any busy farmer to see how he can simplify his chore job by installing these two labor-savers.—E. C.