

## Shallow Cultivation and Rotation.

For many years farmers in Eastern Canada were grain growers merely. Necessity forced the inception of such a system of agriculture. Habit and ignorance prolonged the practice of such farming. The wonderful strength and seemingly inexhaustible fertility of the soil made its long continuance possible. The discovery of the possibilities of the North West and the gradual exhaustion of our fields called a halt. Hence, for some years past change has been in the air.

Live stock farming, the system making the smallest demands on soil fertility, is rapidly supplanting grain growing. Parts of nearly every farm are now much better in condition than they were a few years ago; and, further, such is nature's wonderful recuperative power, since the partial cessation of the tremendous drain of grain exportation the average crop returns for Eastern Canada have gone up very considerably. But, as every farmer knows, even live stock farming long continued means a gradual loss of fertility unless considerable food other than that produced on the farm is fed to stock and the manure properly cared for and utilized.

This fact has led to a study of the methods for cheaply restoring lost fertility and profitably cultivating so that "improved, rather than impoverished" may be the annual verdict. It is impossible to discuss the subject exhaustively in such an article as this, but one plan of cultivation found to give good results is where the meadow or pasture is plowed in August, the sod being turned to a depth of 3½ or 4 inches only. Immediately after plowing, if in a dry time, the land is rolled, then harrowed with a light harrow. It is then left untouched until grass and weeds start to grow when it is again harrowed, care being exercised to prevent the sod being disturbed. The harrowing or cultivating process is continued at intervals (as the weed seeds germinate) until October, when by means of a (3 plow gang) double mould-board plow the surface soil to a depth of about 4 inches is put into drills about twenty-two inches apart and eight to ten inches high. This is found to be a most satisfactory preparation of the soil for corn, roots or grain. Where grain is sown the soil is ready for seeding at a considerably earlier date than where late fall plowing is practised. If along with this system of shallow cultivation a proper rotation is adopted, most excellent results are sure to follow. As clover is the only crop which, while giving a profitable harvest still serves to enrich rather than to impoverish the soil, it is evident that clover should take a prominent place in August rotations in this country. With this fact in mind, a few rotations suitable for the improving of our lands may be offered, as follows:—

3 year rotation (1) grain, (2) clover hay, (3) pasture.

3 year rotation (1) corn and roots, (2) grain, (3) clover hay.

4 year rotation (1) corn and roots or peas, (2) grain, (3) clover hay, (4) hay or pasture.

5 year rotation (1) grain with ten pounds clover seed to plow down for fertilizers, (2) corn and roots, (3) grain, (4) clover hay, (5) hay or pasture.

6 year rotation same as 5 year but left one year longer in pasture.

The reason for surface cultivation and the use of such short rotations as given above is to increase the quantity of and place properly the chief factor making for soil fertility. Dead vegetable matter exposed to moisture and warmth soon breaks down to a form called humus or black earth, the factors above mentioned. Our prairie and newly cleared soils contain immense quantities of this material. Exposure to heat and the intermixture of earthy matter serve to waste. Thus, repeated grain cropping with deep plowing provide the conditions best calculated to dissipate this matter most rapidly and most effectively.

The functions of this common, yet easily lost, substance are varied and important. Being, as anyone can find out for himself, of the nature of a sponge, it retains the moisture in a dry time, but will allow all superfluous water to rapidly and harmlessly percolate to the lower soil layers.

It holds loose, porous soils together, and so otherwise loose sands become staple and provide a good root hold for plants. It renders dense, impermeable soils open and porous permitting the free circulation of air and water and allowing the weak rootlets to penetrate the erstwhile impenetrable space in search of food. It brief, it is the chief requirement of good physical condition in our soils. It contains much plant food, since it is really vegetable matter, and a large percentage of this food is in available forms. It aids also in the conversion of the non-available forms of the elements of fertility into available forms. Further, it retains near the surface the dissolved plant food, which must otherwise have sunk into the sub-soil.

The most important sources of humus on the average farm are farmyard manure and crop residues. Upon the proper application or use of these materials depends the future of Canadian agriculture.

Where the supply of humus is limited its location becomes a very important consideration. Now, most of our crops draw the greatest part of their food from the surface

soil, for, while some roots of most plants penetrate to a considerable depth, most roots of all plants are near the surface. Plants of nearly all descriptions thrive best where the surface soil is mellow and rich in humus. The great crops produced by newly cleared fields and prairie lands exemplify this, as does also the rank growth of plants in our forests, where the subsoil is never stirred, or where the annuals and smaller perennials must depend for their nourishment upon the surface soil almost exclusively. It would, therefore, seem to be clear that available plant food should be near the surface of our fields and that our surface soil should be in particularly good physical condition of tilth.

How to secure these two requirements of rapid, rank and desirable plant growth must, therefore, be the first consideration of every would be successful farmer. Experiment and long practice seem to prove that shallow cultivation and some rotation, more especially the 3 year or the 4 year in dry districts, and the 5 year in rainy districts, are most serviceable in increasing the humus in the surface soil, and so "improving the physical condition," which means "increasing the productivity" of our fields.

## They Father Consumption.

Bad coughs, colds and catarrh are responsible for more consumption than is traceable even to heredity. Catarrh cures more quickly than ordinary remedies because it is the only antiseptic yet discovered that is volatile enough to reach the root of the trouble in remote parts of the lungs and bronchial tubes, and impregnate every particle of the air breathed with its healing, germ-killing vapor. Colds can't last ten minutes, or coughs more than thirty minutes when Catarrh is inhaled. It clears nose, throat and air passages at once, stops drooping, headache, and eradicates catarrh from any part of the system. Two months' treatment, \$1.00; trial size 25c. Druggists, or N. C. Polson & Co., Kingston, Ont.

DR. HAMILTON'S PILLS ARE MILD.

## Good Intentions.

"Our minister did not take any vacation this summer," said Brown, with a smile, as he began a conversation which the Detroit Free Press reports. "Why not?" asked the other man. "Circumstances over which he had no control forced him to stay at home," replied Brown.

"He intended to go away and had made his arrangements, when several enthusiastic members of his congregation—my wife was among them, and the others were all women, too—took the matter out of his hands, and told his wife 'confidentially not to pinch and save for his outing, because the members of the church had hit upon the happy idea of raising a sum especially for his vacation.'"

"As the minister has a large family and his wife finds it hard to make both ends meet, she was only too glad to spend the vacation money in other ways."

"Well, the women held several 'affairs,' and managed to get something over fifty dollars together. Then they decided to make the presentation a gala event, and give all the members of the church a chance to speed the parson on his way with good wishes."

"It occurred to them that a little music would add to the occasion, and so they engaged some musicians. One member of the committee thought that if there was music, light refreshments would be in order, and she took it upon herself to see that they were provided. A third hit on the plan of having the church decorated for the occasion, and hired a man to do the work."

"Early in the evening when they met to compare notes they discovered that their expenses had not only eaten up the amount that they had raised for the minister, but left them a matter of two or three dollars in debt."

"Oh yes, the evening was a pleasant one to some, but there wasn't any presentation. On the way home I asked my wife who was going to square the debt."

"Why, Joseph," she said, "what a question! The minister, of course. It was all done in his interest."

## The age of Brain Work

"In these days, half our diseases come from the neglect of the body in the overwork of the brain. In this railway age the wear and tear of labor and intellect go on without pause or self pity. We live longer than our forefathers but we suffer more. They fatigued only the muscles, we exhaust the finer strength of the nerves." Dr. Chase's Nerve Food is the greatest medicine of this age because it is best suited to the needs of the present day. It restores and revitalizes wasted nerve cells and makes the pale, weak and exhausted strong and healthy and vigorous.

## Boiled Down.

An amusing story is told of the editor of a go-ahead evening newspaper who, in the eternal rushing to press to get ahead of the opposition, was constantly impressing upon his reporters the necessity for condensing all the news.

A terrific boiler explosion had taken place on board a big ship lying at Portsmouth.

"Get down there as hard as you can," he said to one of his men. "If you catch the 11.40 from London Bridge you'll be there soon after two, and can just wire us something for the fifth edition, but boil it down."

And the reporter went.

Soon after three o'clock that afternoon they got a wire from him:—

"Terrific explosion. Man-o-war. Boiler empty. Engineer full. Funeral tomorrow. No flowers."

## The New Dialect.

Perhaps the tendency of some people to turn every part of speech into a verb is a sign of an active nature, but it is an unfortunate tendency. The Baltimore American publishes an amusing rebuke to one guilty of the habit which will please purists and may do others some good.

"We had a delightful time last week," said the city cousin, who was describing the joys of metropolitan life. "One evening we trolleyed out to a suburban home and ping-ponged until nearly midnight, and next day we automobilized to the country club and golfed until dark."

"Well we had a pretty good time last week, too," ventured the country cousin, with an arcaic smile. "One day we buggied over to Uncle Josiah's, and we boys got out in the back lot and baseballed all the afternoon, and after we had dinnared some of the men cidered and tobaccoed a while."

## A Lost Habit.

Many a person has noticed that vacations make it hard to take up at once in one's return the old routines of work; but it is to be hoped that not many find the effect so serious as did old "Aunt Celine."

"Good morning, auntie," said a woman of her acquaintance. "Why aren't you washing nowadays?"

"Well, you see, Miss Clara," said the old colored woman, indulgently, "I's been out o' wuhk so long dat now, when I could wuhk, I finds I's done los' mah taste fo' it."

An old London omnibus driver was standing beside his bus one day, when he was approached by a very comely young woman, who evidently wished to ascend to the outside seats on top, but hesitated for fear she could not make the difficult ascent with becoming modesty. The driver, evidently understanding her dilemma, shook his head and said: "Climb up, miss; don't mind me, legs sin't no treat to me."

## Health for Women

"Few things are more important to a community than the health of its women. If strong is the frame of the mother says a proverb, the sons will give laws to the people." Dr. Chase's Nerve Food is especially woman's medicine. By its action on the blood and nerves it gives strength and vigor to the delicate feminine organs and ensures their regular and healthful functions. It gives color to the pale, strength to the weak, and a rounded form to the thin and angular.

## For Sale.

Two Bangor Buggies. The owners having no use for them they will be sold cheap. They are nearly new and a bargain can be given. Terms cash or approved paper. Call and examine them at MCKENZIE'S PAINT SHOP, Connell street, Woodstock. Aug. 20, 1 mo.

## Probate Court, County of Carleton, Province of New Brunswick.

To the sheriff of the County of Carleton or any Constable of the said County,—GREETING: WHEREAS Richard Gray of the Parish of Wicklow in the County of Carleton a creditor of George Kilpatrick hath by his petition prayed that Letters of Administration of the estate and the effects of the said George Kilpatrick who died on or about the third day of February in the year of our Lord one thousand nine hundred and two at the Parish of Wicklow in the said County of Carleton, may be granted to him.

You are therefore required to cite the heirs, creditors, and next of kin of the said George Kilpatrick deceased, and all others whom it may concern, to appear before the Judge of Probate for the County of Carleton, at a Court of Probate to be held in and for the County of Carleton at the office of the said Judge of Probate in the Town of Woodstock, in said County, on FRIDAY the SEVENTEENTH day of OCTOBER next, at ten o'clock in the forenoon, to show cause (if any) why Letters of Administration of the said estate should not be granted to the said Richard Gray as prayed for by him.

Given under my hand and the Seal of the L.S. said Probate Court this fifth day of September, A. D. 1902.

(Signed) LEWIS P. FISHER, Judge of Probate for County of Carleton. (Signed) DENIS B. GALLAGHER, Registrar of Probates for County of Carleton. LOUIS E. YOUNG, Proctor for Petitioner. Sept. 10, 31.

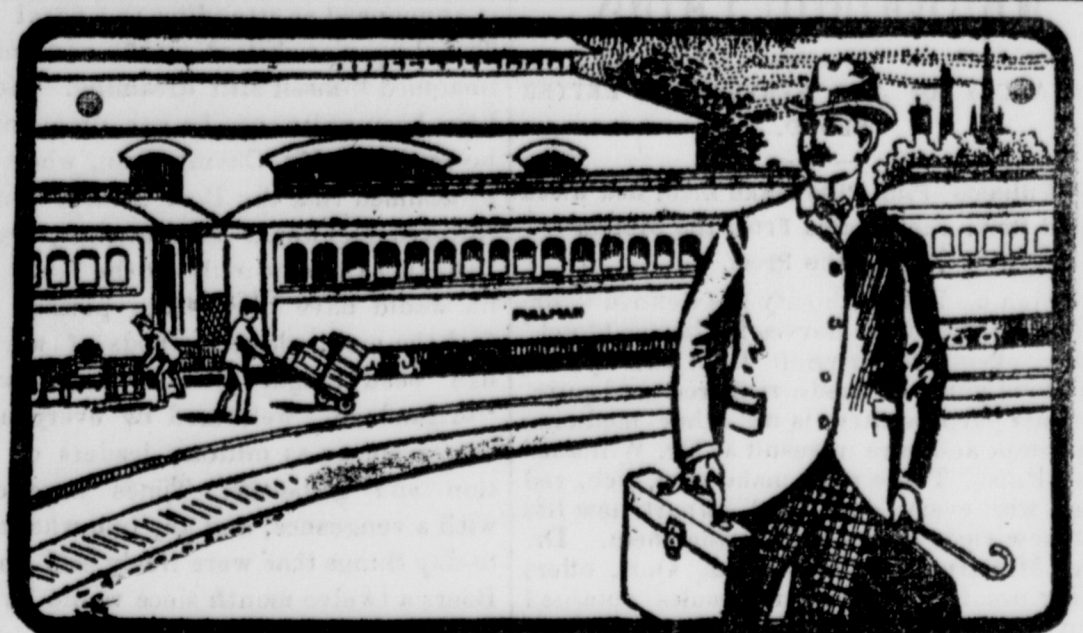
## Probate Court, County of Carleton, Province of New Brunswick.

To the Sheriff of the County of Carleton or any Constable within the said County,—GREETING: WHEREAS Nathaniel K. Shaw Executor of the Last Will and Testament of Cyrus M. Shaw, late of the Parish of Wakefield in the County of Carleton, deceased, has filed in this Court an account of his administration of the said deceased's estate, and hath prayed that the same may be passed and allowed in due form of law by this Honorable Court.

You are therefore required to cite the said Nathaniel K. Shaw the Executor aforesaid, Murray Shaw and Kirby Shaw, of the Parish of Brighton in the County of Carleton, nephews of the said deceased, Ananda Thompson wife of Frank Thompson, of St. George in the Province of Ontario, and Annie Shaw Fletcher, wife of Mr. Fletcher of Mars Hill in the State of Maine, United States of America, nieces of the said deceased, Reuben Shaw of the City of Bangor in the State of Maine, United States of America, adopted son of the said deceased, Dwellie Shaw of said Bangor in the State of Maine, United States of America, and Nettie B. Laurence wife of Blackwell Laurence of Bangor, in the State of Montana, the next of kin of the said deceased, and legatees, and all of the creditors and other persons interested in the said estate to appear before the Judge of Probate for the County of Carleton, at a Court of Probate to be held in and for the County of Carleton at the office of the said Judge of Probate in the Town of Woodstock, in said County, on MONDAY the THIRD DAY of NOVEMBER next at eleven o'clock in the forenoon, then and there to attend the passing and allowing of the said accounts as prayed for and as by law directed.

Given under my hand and the Seal of the L.S. said Probate Court this Second day of September, A. D. 1902.

(Signed) LEWIS P. FISHER, Judge of Probate for the County of Carleton. (Signed) DENIS B. GALLAGHER, Registrar of Probate, County of Carleton. Sept. 10, 31.



## Travellers and Tourists

Travelling from place to place are subject to all kinds of Bowel Complaint on account of change of water, diet and temperature.

Dr. Fowler's  
Ext. of  
Wild Strawberry

is a sure cure for Diarrhoea, Dysentery, Colic, Cramps, Pains in the Stomach, Seasickness, Cholera, Cholera Morbus, Cholera Infantum, Summer Complaint, and all Fluxes of the Bowels in Children and Adults.

Its effects are marvellous.

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Relief is almost instantaneous.

Does not leave the Bowels in a constipated condition.

## Bristol's Leading Store.

## Wool Wanted!

I WANT FIVE TONS GOOD WASHED WOOL.

I have a large assortment of Men's and Boys' Clothing which I received late and will sell cheap.

Ladies' Wrappers and Shirt Waists, a large assortment which are going cheap.

My stock of Groceries, Dry Goods, Boots and Shoes, Hardware, etc., is up to date. Call and see my Molasses.

I have Lime, Brick, Cement and Calcined Plaster.

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Estimates cheerfully furnished on any kind of work in my line.

A full line of materials of all kinds. Aqueduct Pipe at specially low rates. All work guaranteed first class.

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We handle a nice line of COOK STOVES and HEATERS.

Bicycles Repaired and Bicycle Sundries always on hand.

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