

Think of it

There is hardly a stage of our existence when a really good Photo is not a welcome gift to some one, or is needed for some distant relative, or for a thousand and one other reasons.

THE COOK STUDIO

Bayer Photographer
Charlottetown

A. E. LYON

Photographs of all sizes, films to fit all size amateur cameras are received fresh every week. Moderate Prices. Personal attention to Amateur Photography

Complete Optical Service

Our expert system of eye-examination, coupled with our LENS GRINDING SERVICE offers a complete service, equal to the best procurable. That this service is appreciated is evidenced by our constantly increasing volume of business. We sincerely thank our patrons, and will continue to strive to merit their confidence.

G. F. Hutcheson

Optometrist and Optician

Feeds

In stock and to arrive
1000 BAGS BRAN, 1000 BAGS MIDDINGS, 600 BAGS OIL CAKE MEAL (old prices) 500 BAGS CRACKED CORN AND CORNMEAL, SCHUMACHER FEED PULVERIZED OAT FEED, GERM MIDDINGS, 60,000 LBS FEED WHEAT, (675 Bags), 600 BAGS GROUND OYSTER SHELLS, GRIT FOR POULTRY, PURE LINSSEED MEAL, COTTON SEED MEAL, FLAX SEED, CRUSHED OATS, FEED BARLEY, Buckwheat, etc. etc.

Carter & Co Ltd

Queen St. Warehouse. Phone 208.

PROFESSIONAL CARDS

DR. I. E. CROKEN VETERINARY SURGEON
Office and Residence, 171 Great George Street
Opposite Kennedy's Garage
Phone No. 804
4022-1-3MB1moyd.

McLean & McKinnon, Barristers, Attorneys-at-Law
Office, Royal Bank Building, Charlottetown. P. E. Island

Morson & Duffy, Barristers and Attorneys
Solicitors for Royal Bank of Canada
MONEY TO LOAN

McLeod & Bentley, W. E. Bentley, K.C.
Barrister and Attorney-at-Law
MONEY TO LOAN
Office - Bank of N. S. Chambers

MARK R. MCGUIGAN, B.A.
Barrister, Solicitor, Notary Public. Money to Loan
Cameron Block, Charlotteown, P. E. I.



On good teeth depend health appearance and good nature

Don't harbor destructive germs among your teeth. Use MENNEN'S CREAM DENTIFRICE. It destroys germs - polishes teeth and keeps the cavities of the mouth clean and sanitary.

MENNEN'S CREAM DENTIFRICE

Gentleman A Dress Shoe For Evening Wear Patent Button Boots

Long pointed toes, Black Ciavdnette tips \$12.75

All sizes This is the Newest Boot-Absolutely Correct for Dress Wear

Alley & Co., Ltd. Fashionable Shoes for Cash Get the Returned Man a Job

Expert Optical Service

Blowing your own horn gets you nowhere. His service and being able to deliver the goods that count. Our patients tell us that we are giving an Optical Service equal to any given in the larger centres. They also tell us that before we came to Montague they had to go to Charlottetown or elsewhere to have any special work done. Now that is all changed and they can get any special work done here. Have your eyes examined and be convinced by the latest methods that we back up all we claim in our advertisements. Service first last and all the time is our motto.

H. J. MABON Optometrist and Prescription Druggist. P. E. I. Next door Bank of Commerce

E. E. PARKMAN Jeweler & Optometrist

Graduate with honors from the Canadian Ophthalmic College, Toronto, Ont. Scientific examination of the eyes with the most modern methods and appliances. We use the Retinoscope or Shadow Test. The Electric Ophthalmometer. The Electric Ophthalmoscope for determining the diseased conditions of the eyes. The Ski Ophthalmometer (the above instruments are the only ones in Kings County.) The Revelation Test Cabinet and many more delicate instruments. We are Opticians to the people who want the best in quality and satisfaction and we are constantly testing with good results patients who have tried elsewhere. Try us and be convinced that we give highest quality and best results with a saving of 20 per cent or more.

ALL GOODS GUARANTEED Montague, P. E. I.

E. E. PARKMAN Montague, P. E. I.

Eastern Guardian Field Experiments

The following paper was read by Mr. J. A. Clark, Superintendent of the Charlottetown Experimental Station, before the convention of the Nova Scotia Farmers' Association held in Kentville, on January 27.

The field experiments that I will describe this afternoon are a few of a series that we have been conducting at Charlottetown. Your conditions differ from ours only slightly, and I will simply give a description of our work, and let you draw the conclusions or ask questions, as discussion usually brings out the information that you wish, most quickly.

Rotation Experiments. Three, four, five and seven year rotations-Eradication of Weeds. A three year rotation was started nine seasons ago on a piece of land white with Ox-eye Daisies, and governed by Yarrow. The field had been used for a number of years as permanent pasture, as it was wet and unsatisfactory for other farm crops. We drained the land in 1910, by placing tiles about 2 1/2 feet deep and 3 feet apart; the six inch main crossing the field diagonally. The area of each section of the rotation was one acre, and the slope of the land is to the west. The purpose of the rotation was to destroy the perennial weeds present, ox-eye daisy and yarrow, and to determine the increase in fertility of the land so treated.

The plan of the rotation was: 1st year, a hoed crop, and we have usually grown potatoes; 2nd year, grain - this has been wheat; 3rd year, hay; and after the first round of the rotation, this has given us good clover. One section of the rotation, after it had been broken from the permanent pasture sod for several years, remained very badly infested with yarrow. This was manured on the sod at 15 tons per acre, and ploughed one year in early August, after the hay had been removed. The plough was followed by a heavy roller to put the sod down in such a way that it would not tear up with the cutaway disc harrows. A double angle serape of the harrow mentioned was given this field whenever the yarrow would show green between the sods throughout the summer, or about every week or ten days. In late autumn the field was ribbed up across the face of the slope to prevent washing, and to give the frost a chance to kill the roots of the plants. This effectively rid us of the old roots of the yarrow, and the rotation prevented this plant from producing seed, as it is like the Ox-eye Daisy, which does not flower the first year after the seed germinates. A description of the handling of this section for one round of the rotation will illustrate our method. The land was levelled by using the spring tooth harrow, and the sod was ploughed the first thing after the land was ready in the spring. Then the field was harrowed angleways, usually giving it a double angle scrape each time, as it is much easier to turn a disc harrow in a smaller circle than that way. When in good till, the potatoes were planted with an iron Age planter, in rows 30 inches apart. The rows were levelled with the spike harrow, which was used for cultivation until the plants were well above ground. The potatoes were from 2 to 4 inches high, the seed size, etc., was removed from the planter, and the potato plants covered deeply by the two covering discs of the planter. This destroyed the weeds, and kept the bugs off for a time. The horse cultivator was used after each heavy rain throughout the early summer, and the plants were sprayed with Bordeaux and poison regularly until autumn. The potatoes were dug and stored, and the land raked up in November. The following spring a good seed bed was prepared, and the section sown out with 10 lbs. Red Clover, 2 lbs. Alsike and 12 lbs. Timothy, with 1/2 bushels of wheat as the nurse crop. We are using our rotation for the multiplying of our best sorts of cereals, and usually grow 1 acre of Elite Stock seed of a variety, on the sections. This enables us to have a fair amount of this generation seed of all our leading cereals, for sale to breeders. We find that the clover plants among the wheat frequently smother many weeds, as it usually is up to the hands of the sheaves at harvest. The third year of the rotation the clover has cut when in full bloom, and in any event before the 25th of July, since we have found that Ox-eye Daisy does not mature its seed sufficiently to reproduce itself, if cut previous to that date. This completes the cycle of the rotation. It is only a question of starting all the seeds already in the ground, and then destroying the plants, to get your field entirely free. At the end of the first three years, there was a marked decrease in the daisy. At six years, only a sprinkling of bloom was to be seen over the field and at nine years all the plants left could be easily hand picked, and we have decided to cancel the rotation, and use this land for other experiments that are now more urgent.

This three year rotation has produced a large quantity of farm produce per acre than any other of our rotations. It is planned for the eradication of certain weeds, and is the cheapest method of destroying them. When it can be used in connection with sufficient permanent pasture, it is one of the most suitable stock rotations. In 1918 the returns were: 1st year, 360 bus. 55 lbs potash; 2nd year, 33 1/3 bus. wheat; 3rd year, 2 bus., 1083 lbs clover hay. The four year rotation is most popular with those who prefer to grow their roughages and purchase part of their concentrated food-stuffs. The rotation commences with hoed crops, which are followed by grain, clover hay and pasture. This rotation has a great many good points, and can be strongly recommended. The farm can be divided into the four equal

sections of the rotation by two fences that cross in the middle of the farm. The five year rotation: grain, hoed crops, grain, hay and pasture, is probably the one best suited to the average dairy farm. It will supply almost twice the quantity of concentrates per year that could be secured from the four year rotation; thus saving large bills for expensive mill feeds. If the grain is to be used for a single crop of clover, a good cut of clover hay the fourth year of the rotation is practically assured. This, with corn, roots and oats, peas and vetches grown from the second year of the rotation, makes a very good ration for the best round-up, for cows. Seven Year Rotation.-This rotation, frequently known as the P.E. Island rotation, has a few good points; one of the best of these being the long interval between hoed crops, which is the best preventive against such diseases as club root of turnips and certain potato diseases. It starts with grain, then hoed crops, grain, hay, pasture and pasture. The four years in sod makes it very tough for breaking, greatly reduces the proportion of clover in the hay crop, and frequently allows the land to be over-run with noxious weeds and moss. I scarcely think that this should be called a satisfactory rotation, but many of our farmers are still following it, or a slight modification of this rotation.

Cultural Experiments. Previous to starting our soil cultural experiments, we staked off the field and recorded the yield of oats from all of the plots one year, and the yield of barley the following year. These crops were grown without the use of manure or fertilizer. A fairly accurate record of the nature of the crops grown for the previous 13 years was also secured as a working basis. The land, which is a sandy loam, underlain by a gravel brick clay hard pan, had to be drained. This was done as uniformly as possible, except in the area devoted to the drainage experiment, where we laid the tile at depths varying from 6 inches to 24 inches to one of 48 inches. So far, the drained plots have given greatly increased yields over the undrained ones, averaging 21 bushels and 30 pounds per acre in the centre check plots in between. We find very little difference, however, between the plots tiled at different depths. In fact, the one with tile 24 inches deep gave a better yield than those at 30 or 36 inches. I expect that this is due to the fact that we have an impervious hard pan at about 18 inches below the surface, and that the drainage is over the surface of this to each drain, and then a straight drop down to the tile. Another experiment that will in-

terest most men was one comparing autumn and spring ploughing. Autumn Versus Spring Ploughing: There are so many different soils to plough, and so many kinds of ploughs to plough them with, that no definite rule can be laid down as the best method for all soils. We plough to bury vegetation and manure, so that they may decay and feed the future plants. We plough to pulverize the soil and fit it to receive the seed. No other implement will do so much in one operation, toward the making of an ideal seed bed, as a good plough in skilled hands. We plough to increase the water holding capacity of the soil. We plough to destroy weeds, insects and rodents. Why Should We Plough in the Autumn? Because this comparatively slow operation may be performed more economically when horse and man power are not at such a premium as they are during the rush of spring seeding. Early autumn ploughing enables the heat from the September sun to hasten the decomposition of one season's refuse plant growth so that it may feed the succeeding ones. Late autumn ploughing with a plough greatly benefits many soils by exposing the greatest possible surface to the action of freezing and thawing, nature's most wonderful pulverizer, which has made most of the seed beds throughout the year, and is today our greatest agent in producing the till so necessary for large crops. In the autumn a dry soil may be ploughed without causing the same injury that would follow ploughing a soil in that condition in the spring. It is also possible to plough land so wet in the late autumn that there is a gloss or sheen from the mould-board knowing that the frost of winter will turn what would make clods at other seasons, into mellow seed beds in the spring.

Soils that Should be Left, and not Ploughed until Spring. Light soils that blow, and soils on steep hill sides that wash, should not be exposed to the gates and heavy rains of winter and early spring. Some heavy clay soils that puddle during the heavy spring are better left and ploughed when they have reached the right degree of friability to crumble under the mould board.

Land that Rarely Needs the Plough to Prepare it. Land that has produced a hoed crop such as potatoes, turnips, mangels or vegetables, usually produces a better crop if the seed bed is formed for the following grain crop without using the plough. Ribbing in late autumn has been the only use of the plough that has increased such crops at Charlotte-

ton. In this experiment the average return for four years with oat plots was as follows when ploughed: 3 in. deep 5 in. deep 7 in. deep

2 b. 26 lbs. 44 b. 30 lbs. 41 b. 30 lbs. -Spring- 4 in. deep 6 in. deep 39 bus. 3 lbs. 39 bus. 2 lbs. In this experiment the average yield in favor of autumn ploughing of sod was 3 bushels 19 pounds of oats per acre. One of the experiments that lends itself best to demonstration purposes included a series of plots known as "Seed Bed Preparation", starting with one stroke of the spike tooth or smoothing harrow before seeding, and gradually increasing the amount of work until the eleventh plot was worked as follows: Once over with disc harrow, rolled, then once over with disc harrow again, followed by the smoothing harrow, rolled, seeded with disc seeder and finished with the smoothing harrow. A photograph would show these plots just rising up as steps some seasons when conditions are unfavorable for grain crops, and shows clearly the advantage of good till for our crops.

BAN ON CAKES AND PASTRY IN FRANCE. PARIS, Feb. 7.-France after Feb. 20 again becomes the land of no cakes. After the twentieth the new bread regulations prohibit the making of cakes or pastry wholly or even partly from wheat flour. The pastry makers' association is up in arms against the provisions of the new law, the more so because the large biscuit manufacturers apparently are excepted from it. The association maintains that the order spells ruin to its trade, which was one of the hardest hit during the war, when most of the stores were compelled to close down and dismiss their staffs.

The NEW EDISON



2 Millions Hear Edison's Proof

The truth about the New Edison sounds stranger than fiction. People would not believe that the art of the living artist and its Re-Creation by the New Edison could not be told apart. So Edison dared again. He gave them the actual proof.

In public performances all over the United States he matched the voice of the living artist against the New Edison's Re-Creation of that voice and challenged the audiences to tell which was which. Forty great artists participated in these tests. Two million people heard the tests, and said "there is no difference." 500 newspapers recorded these stories of the New Edison's triumph.

The NEW EDISON

"The Phonograph with a Soul" Re-Creates every subtle beauty, every rush of feeling, every inflection of tone that distinguishes the living artist's voice. This extraordinary power is written in the public records. It is proved every day in this store. Come in. Learn for yourself that the truth about the New Edison surpasses even the claims of other instruments.

A. E. TOOMBS

167 Queen Street, Charlottetown

Experimental Data: A few results from cultural experiments at Charlottetown, that bear directly on this problem, are of interest. The figures secured are from average yields covering four seasons from fields of oats on a comparatively level, sandy loam soil. Sod ploughed in August gave 47 bushels and 14 pounds; sod ploughed in November (no other autumn work) 42 bushels and 32 pounds; sod ploughed in spring, 31 bushels and 9 pounds. Loss from spring ploughing compared with August ploughing, 13 bushels and 5 pounds; compared with November ploughing, 8 bushels and 23 pounds. There were 45 plots in this particular five year rotation, and the spring ploughing of sod averaged 6 bushels below the poorest autumn method of breaking the sod. Therefore plough your sod in the autumn, and as much of your stubble as you can. Leave your land after a hoed crop without ploughing, except to rib it up. In connection with this subject of ploughing, we have run a series of plots ploughed at different depths, with and without a subsoil attachment. Sod and stubble were ploughed at the following depths: 3 inches, 5 inches and 7 inches. Other plots of sod were ploughed at these depths, and then subsoiled 4 inches in the bottom of each furrow. Subsoiling did not give us any appreciable gain at any depth, and was evidently injurious when connected with the 7 inch ploughing, as these plots showed a loss averaging over 2 tons of turnips per acre. In the stubble land the average return for four years with oat plots was as follows when ploughed: 3 in. deep 5 in. deep 7 in. deep

For your table drink the safest, satisfying beverage is Instant Postum

When tea or coffee disagrees-when fussed-up nerves tell you that either is harmful-order a tin of this rich, wholesome, satisfying drink.

You'll find it both economical and pleasing.

"There's a Reason"

Vertical advertisement for Edison records featuring various artists and their recordings.

Vertical advertisement for Instant Postum featuring a testimonial and product information.