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The Russell Leader.

Published every Thursday.
 Office nearly opposite the Post
 Office, Mill Street Russell, Ont.
 Mailed to any part of Canada
 or the United States for One
 Dollar a year in advance.
 Advertising rates made known
 on application.

LOWRIE BROS.
 Publishers and Proprietors.

THURSDAY APR. 3rd 1902.

ARTIFICIAL ICE.

The following is a clipping from
 a paper published in Riverside,
 California.

The senior class in physics at
 High school enjoyed a tour of
 inspection of the ice factory yester-
 day afternoon. The class is inter-
 ested in the study of heat and Pro-
 fessor Zumbro thought to give
 them a practical illustration of this
 phase of the study. The class was
 first received at the factory, and
 instructed by Mr. Zumbro, explor-
 ing all the workings of the business.
 These are some of the things they
 learned:

The ice is frozen in large tanks
 by means of a heavy brine cooled
 with ammonia. The ammonia is re-
 ceived in the form of a gas. It is
 pumped into a compressor and by
 means of a force pump is put under
 a pressure 150 pounds to the square
 inch. It is too hot at this stage to
 condense to a liquid and it is run
 from the compressor through about
 1000 feet of small pipe, over which
 is a constant flow of water. From
 the condenser it flows to the tanks,
 where by means of a small valve the
 liquid ammonia is allowed to ex-
 tend into about a thousand feet of
 coiled pipe to pressure of only
 about 15 pounds and changes from
 a liquid into the form of gas again.
 The coil of pipe through which this
 ammonia gas flows is completely
 covered by the heavy brine sur-
 rounding the tanks when the chem-
 ical change of the ammonia from a
 liquid to a gas, absorbs all the heat
 out of the salt water. But the freezing
 point of salt water is much lower
 than that of pure water and the
 brine reaches a temperature low
 enough to freeze the pure water in
 the tanks which it surrounds. From
 the tanks the ammonia flows back
 to the compressor again and thus is
 re-used over and over again.

There are six of these large tanks
 at the factory. Each tank is divid-
 ed into sixteen compartments and
 each compartment yields 1200
 pounds of ice. It takes about 72
 hours to freeze a tank of the water.
 Pure artesian water is used. The
 brine used is made of water which
 contains all the salt it will dissolve.
 The company have their large
 store rooms almost full of ice and
 are preparing to meet the summer
 demand, having about 5000 tons of
 ice now in storage.

**HOW TO MAINTAIN
 SOIL FERTILITY**

"We all know that it is very de-
 sirable to have a fertile soil in
 which to grow crops," says F. P.
 Beck of Michigan, "For success in
 farming depends largely on the
 fertility of the land. Every one
 knows of many, once fertile farms
 which are not now producing half
 what they should—scarcely enough
 to pay for the labor necessary to
 produce a crop. It is more profit-
 able to farm so as to maintain or
 improve the soil than it is to rob
 the soil of its fertility, and in the
 end bring ruin to the owner of the
 farm."

How is this to be done? I be-
 lieve our greatest loss of fertility
 is the loss of humus. A soil with-
 out humus will not carry a crop
 successfully through a drouth. A

Miscellaneous

LOST—A Coon mitt. Finder will
 please return to The Leader
 Office.

Farm for Sale or To Rent

The farm is situated near East-
 mans Springs.

It consists of the west half of
 Lot no. 6 in the 6th concession and
 the north quarter of Lot number 6
 in the 7th cons. of Gloucester.

The buildings are good. They
 consist of Dwelling, Barn, Stables
 and Grainery. There is also a good
 well on the place. For further in-
 formation apply to
 ROBERT KYLE, North Winchester

For Sale!

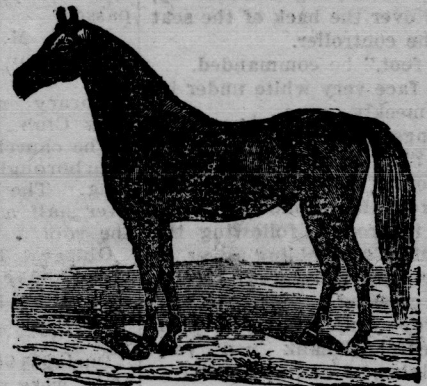
Ten choice SH Bulls year olds
 and under fancy pedigrees and all
 registered. These Bull were bought
 in Western Ontario a month ago.
 Prices reasonable considering qual-
 ity. Intending purchaser should
 come at once. D. P. McPhail & Son

WANTED—An assistant cheese
 maker. Apply to G. W. Mar-
 quette, Marvelville.

LOST—A baby's shoe. Finder
 please leave at the Leader
 Office, Mill Street.

TO RENT

Store on Post Office at Felton.
 A good business stand, close to
 school, blacksmith shop and cheese
 factory. 1 acre of land in orchard
 goes with the store. Out buildings
 good. Apply to Mrs. Josh Annable
 Sr., Felton, Ont.



HORSEMEN!

When you are ready to order
 your printing call at the Leader
 Office. We are prepared to turn out
 work neatly and promptly. We
 charge Ottawa prices.

Leader Office.

Mill St. opposite Post office.

**H. Lapine,
 Jeweller,**

And well-known watchmaker of
 Embrun, will open a branch
 office in Russell, next door to
 the Russell House.

OPEN FOR BUSINESS APRIL 1st

Clocks and Watches

repair. d.

ENR AVING.

A good stock of Jewelry al-
 ways on hand.

Best quality of Watches and
 Clocks for sale.

H. LAPINE.

clay soil devoid of humus will be
 lumpy and hard, and will not re-
 tain moisture for very long. We all
 know the effect on a crop, and the
 great amount of labor required to
 prepare such a piece of ground for
 a crop. Hence our aim should be to
 farm so as to produce and leave as
 much humus in the ground as pos-
 sible. This is best accomplished by
 a rotation of crops, and one crop in
 the rotation should be clover which
 (Continued in next issue.)

**NEW GOODS
 NEW PRICES**

Just Arrived,

Our new Spring Stock of Dry
 Goods consisting of all the latest
 designs for

SUITINGS & BLOUSES,

1 Case Prints, Good Pattern 6 to 10

1 Case Mercerized Satteens 15 to 25

Organdie, Dimity, Nainsook Mus-
 lins.

Chambray, Duck Costumes,

Silkette, Batiste, Grenadine etc.

See our line of Blouses.

Just the thing for Spring.

MENS DRESS.

Shirts in white and Colors, ties,
 Collars, Cuffs, large stock to select
 from.

Summer Silks in all the leading
 shades.

Boots and Shoes, the King Quali-
 ty at Bottom Prices.

**Stationary and Patent
 Medicines.**

Groceries—all the delicacies of the
 season.

Teas, Black, Green and Ceylon
 in Packages and Bulk.

Canned Goods of all descriptions
 and prices right.

Car of Factory Salt

**Car of Feed, Bran and
 Shorts.**

All winter goods reduced to
 cost. Such as Gloves and Furs.

Great sweeps in prints and
 gingham. Ladies Spring Suits
 and Jacke's all going below cost
 in order to make room. Do not
 miss this opportunity and satisfy
 yourself by getting a good bar-
 gain.

Wm. Petrie & Co

For Sale.

Farm for Sale

The last quarter of lot 2 in the
 4th con. of Russell containing 64
 acres. This farm has good buildings
 all new. It will be sold reasonable
 if sold soon. For particulars apply
 to John Wagner, Morewood Ont.

Farm for Sale.

A desirable property on the
 banks of the Castor in the town-
 ship of Russell, one mile from Rus-
 sell Station on the O & N Y R. It
 and three-quarter of a mile from the
 thriving Village of Russell, being
 composed of N. pt. Lot 10 in the
 4th concession; containing 120
 acres more or less. There are thirty
 acres hardwood bush; balance
 under cultivation. Good frame
 Dwelling, well finished, with wood-
 shed attached. Good frame Barn,
 Stables and other out-buildings.
 There are two good wells.
 For further particulars apply to
 Mrs. Walter Loucks, Russell P. O.

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ATTENTION!

Those who intend erecting Buildings this Season will find
 it to their advantage to call upon us and get our prices upon
 lumber and other supplies. We buy direct from headquarters
 and are in a position to quote the very lowest rock bottom
 prices upon all

Rough and dressed lumber

Lath and Shingles.

Estimates upon all kinds of buildings furnished on application.

WORKMANSHIP FIRST CLASS.

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Cheapest Fence on Market. 9 strand woven wire for 50 cts. a rod.

Best Quality Stoves and Ranges.

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LEN WOOD.

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OF THE FAMOUS

Canada Carriage Co's

Buggies

This will be the only opportunity to get
 one of these splendid rigs as only a lim-
 ited number can be procured.

J. HARRINGTON

ADVERTISE IN

THE LEADER

LUMBER.

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Having bought out the branch yard of Carkner & McMaster
 Bros., is handling all kinds of building material,

Rough and Dressed Lumber,

Feather Edge and Shingles.

Orders taken for Sash & Doors.

We also handle the celebrated

Asbestio

For PLASTERING HOUSES

Plaster of Paris, Lime, and Cement always in stock.

Hoping to merit a continuation of the former patronage of this yard
 I Remain Yours Truly,

W. C. MILLAR.