

THE MONTHLY FARMERS' ADVOCATE

PERSEVERE & SUCCEED

Vol. 4] DEVOTED TO THE BEST INTERESTS OF THE COUNTRY. [No. 9

WILLIAM WELD,
Editor & Proprietor.

London, September, 1869.

Postage Prepaid.
Office—Richmond St., op. City Ha

GOOD FOR MAN AND BEAST. FARMERS READ THIS.

LEWIS A. PHILLIPS, of Providence, R. I., writes as follows:
Messrs. Perry Davis & Son.—Gents—I have for many years used your valuable medicine, the "Pain Killer," on my horses, and can testify to its efficacy in curing Galls, Sprains, Bruises, Cuts, Cramps, Weak Joints, Rheumatism, Colic, &c., &c. I have had over 40 horses in constant use, in the omnibus business, and have never known it to fail in any case where I have used it.

LEWIS A. PHILLIPS.

Read the following letter from Dr. Deal, of Bowersville, O., who is a Veterinary Surgeon of great skill:
I have given "Perry Davis' Pain Killer" in many cases of colic, cramp and dysentery in horses, and never knew it fail to cure in a single instance. I look upon it as a certain remedy.

DR. JOHN R. DEAL.

"Pain Killer" is equally good for man or beast and on farmer should be without it a single hour.
Sold by all Druggists and Medicine Dealers at 25 and 50cts. per bottle.

ALLEN'S LUNG BALSAM!

FOR THE CURE OF

CONSUMPTION,

And all Diseases That Lead to

Such as Coughs, Neglected Colds, Pain in the Chest and all Diseases of the Lungs.

As an Expectorant it has no equal

It has now been before the public for a number of years and has gained for itself a

WORLD-WIDE REPUTATION.

Physicians recommend it in their practice, and the formula from which it is prepared is highly commended by Medical Journals. Call at the Druggist's and get a Pamphlet. Every Druggist sells the Balsam.

PERRY DAVIS & SON, MONTREAL,
Sole Agents for Canada.

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GEORGE GRAY,
PLOUGH AND
Agricultural Implement Maker,
Fullarton Street, London, Ontario.

Samples to be seen and orders taken by W. WELD,
at the Agricultural Warehouse, London.

W. W. GARLICK, VETERINARY SURGEON
and John L. A. Poett, member Royal College Veterinary Surgeons, England, and graduate of the Edinburgh Veterinary College, late Veterinary Surgeon to the Royal Horse Artillery and First or Royal Dragoons
Horses and cattle attended to, and medicine always on hand for Ring Bone, Spavin, Curbs, &c. Office, next door west of engine house, North street, London Ont

Jas. FERGUSON & Co.,

PORK Packers, King Street, London, Ont. Highest Cash Price paid for Pork alive or dressed.

Manufacturers of Mess and Prime Pork,

BACON, SHOULDERS, LARD, &c.

Hams and Shoulders Sugar-Cured,
And cured in all other forms.

J. M. COUSINS, LONDON, ONT.

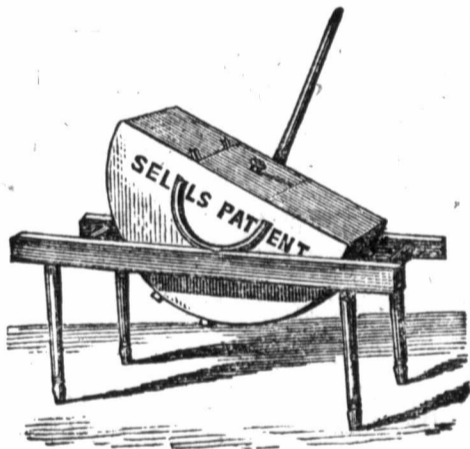
MANUFACTURER OF

Self-Acting Cattle Pumps,

COMMON PUMPS, FANNING Mills and Straw Cutters. 1-o.

COUNTER-BALANCE

ROCKING CHURN,



PATENTED by H. SELLS, Dec. 29th, 1868.

THIS Churn is superior to all others in use; it makes more Butter from the same quantity of Cream; it is worked with three quarters less power; a child six years old can easily churn with it; it makes better butter, as it gathers it in Solid Rolls and works all the milk out of it. All this is done in less time than can be made with a dash churn, and it is quite as easily cared for and cleaned as a common dash churn. Manufactured by H. Sells & Co., Vienna, Ont., price \$5.00. All orders will receive prompt attention. Agents wanted.
Address H. SELLS & Co
Vienna, Ont.

May be seen at the Agricultural Emporium.

W. BAWDEN,

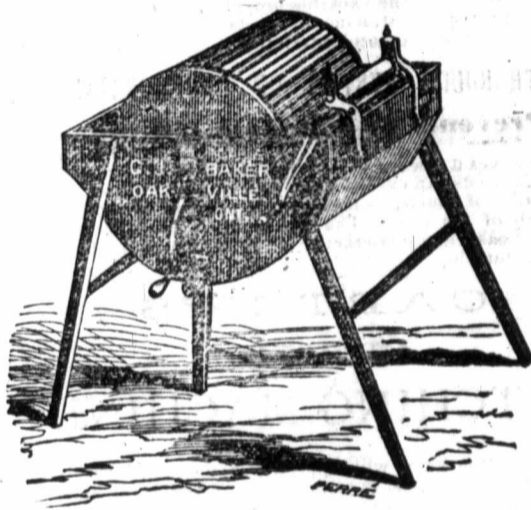
AUCTIONEER, Land, House and general Agent.
Office Talbot St., London, Ont.

G. J. BAKER

HAS invented a Machine that makes washing day a pleasant pastime, instead of—THUMP, THUMP, SCOLD SCOLD, all the day as of old. It is pronounced the HOUSEKEEPER'S FRIEND AND UNIVERSAL FAVORITE, by all who have seen and used it. It is universally acknowledged that a good

Washing Machine

WITH A WRINGER COMBINED,



Will save two-thirds of the labor, and make the clothes last more than twice as long as those done in the old style. The reason why G. J. Baker's Patent Washing Machine is

SUPERIOR TO ALL OTHERS

Is, because it washes quicker and cleaner, and makes the clothing whiter with less muss about the house than any other Machine in existence; thereby saving more than half the labor, half the fuel, and half the soap generally used—as a child twelve or fourteen years old can do more in two hours than a woman could do in half a day in the old way. See it and try it before you buy any other kind, as it is a machine that is easily worked, and less liable to get out of order than any other machine now in use.
G. J. BAKER.

Oakville, Ont.

Price of Machine at the factory, \$10. They may be seen and procured at the Agl. Emporium, London.

D. DARVILL,

DEALER IN

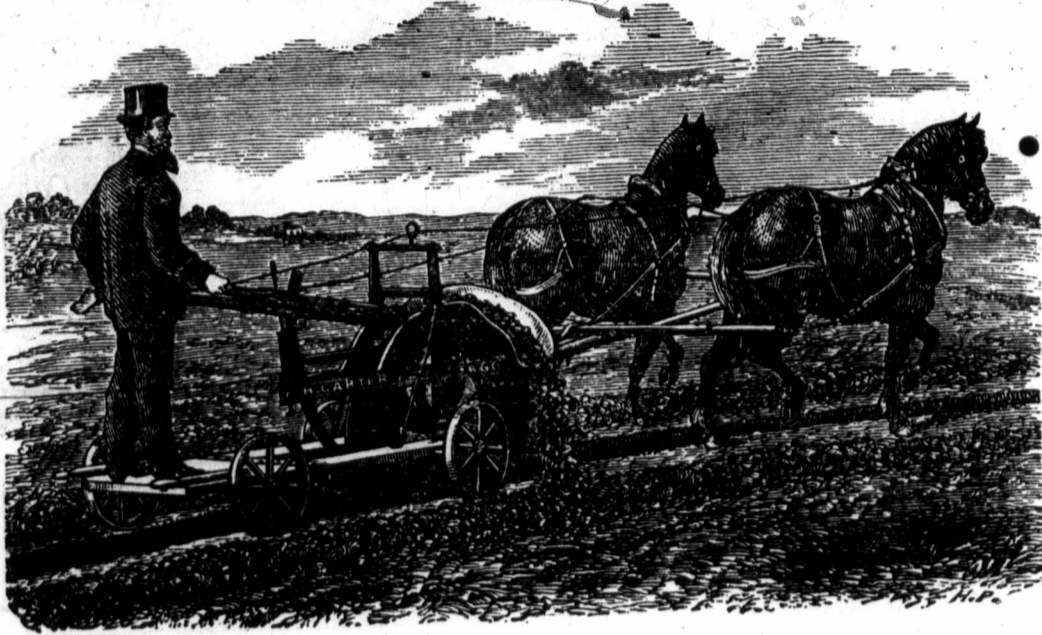
FARM IMPLEMENTS

MACHINE OIL, &c.

SAWING and all kinds of Machines sold and made to Order. Talbot Street, opposite the Market, London, Ontario.

PLUMMER & PACEY, MANUFACTURERS OF
J. B. Lazier's Patent Revolving Horse Rake, Price eight Dollars

DRAINING:



FACTS FOR FARMERS.

The best authorities on Agriculture say that thorough drainage will add at least one third to the product of the soil.

Drainage will often save a crop. Drainage will enable a farmer to work his land much earlier in the spring, and thereby his crops escape risks to which late planting exposes them.

Drainage will often convert useless land into the most productive.

Rain should not be permitted to run off the surface of the soil, nor should it remain in it to sour, but should precolate through it, and then be removed, thus imparting to vegetation the valuable properties it contains, so necessary to the sustenance of vegetable life. Hence the great importance of underdraining.

A THOROUGH SYSTEM OF UNDERDRAINING Prevents of Soil from baking.

Preserves it always in a moist and porous state, so that the roots can extend to great distances in the soil in search of nourishment, and thus causes a vigorous growth of the crop. The undersigned has therefore great pleasure in introducing to the enterprising farmers of Ontario,

CARTER'S IMPROVED DITCHING MACHINE

An Invention which will supply a great want, and greatly help the agriculturist in causing "two blades of grass to grow where but one grew before," and at a price greatly under the cost of ditching and draining in the usual manner—by spade and mattock.—This Machine was tried last summer on Mr. Leslie's farm, near Toronto, and earned the approbation of all the practical men present, and received flattering notices from the representatives of the press sent to report upon its merits.

The following additional testimonial is now submitted, and as it is subscribed by prominent and well known farmers in the County of Elgin, the undersigned rests confident that the merits of the machine will remain unquestioned, and that the more it is introduced the more useful and popular it will become.

Testimonial of Eye-Witnesses.

We, the undersigned, having been present at a trial of Carter's Improved Ditching Machine, held on the farm of Mr. Andrew Murray, Malahide, Ont. 28th July, 1869, hereby certify that the said machine in our judg-

ANDREW CHISHOLM & CO.

IMPORTERS of Staple and Fancy Dry Goods, Carpets and Oil Cloths. Manufacturers of Clothing and General Outfitters. Dundas Street, London, Ont.

SIGN OF THE STRIKING CLOCK.

Opposite the Market Lane.

W. McDONOUGH'S

Is the best place in the city for Teas, Sugars, Tobaccos, Fruits, Wines, Spirits, Cordials, Cigars, &c., whole sale and Retail. Terms Cash. Chequered Store, Richmond Street.

ment is perfectly adapted for the purposes of Land Draining, supplying a machine exceedingly simple in construction, easily handled, and admirably adapted for agricultural purposes, and for which we feel assured a good return will be realized by any person requiring it, being satisfied that under ordinary circumstances the Machine is capable of making drains from 2½ to 3 feet deep and 8 inches wide at a cost of from two to four cents per rod according to the nature of the soil operated on; and we therefore recommend the said Machine to the favorable notice of the farming community.

T. M. Nairn, Warden, Co. of Elgin
James Brown, J. P., Farmer,
Peter Clayton, J. P., Farmer,
A. J. Davis, Farmer,
William Adams, Farmer,
Ezra Foote, M.D.,
John Vanpatter, Farmer,
Richard Hill, Farmer,
James McCausland, Farmer,
Abram Beiner, Farmer,
A. Hill, Farmer and Mill Owner,
Jesse Learn, Farmer,
Andrew Murray, Merchant,
Jesse Kinsay, Farmer,
G. J. Walker, Merchant,
Simon Miller, Farmer,
W. J. Kerr, Merchant
Calvin Adams, Farmer,
Rev. Joseph Clutton,
Thos. Locker, J. P. Farmer,
Joel W. Davis, Farmer,
Elias J. Adams, Farmer,
Ira Doolittle, Farmer,
Richard Locker, Farmer,
Benjamin Schooley, Farmer,
W. R. Farthings, Merchant,
Alexander Treadwell, Farmer,
W. E. Murray, Conveyancer,
Edwin Price, M.D.,
Seth Lewis, Farmer,
Thomas Little, Farmer,
John W. Gillett, J. P., Farmer,
Geo. F. Clark, M.D.,
Ganes Pritchard, Farmer,
Harvey Vanpatter, Farmer,

The Gross Weight of the Machine for shipment is 1370 lbs.

Price at the Factory, \$130.

Applications to manufacture on Royalty, or for Machines, to be addressed to
DANIEL STEWART,
General Agent for Dominion,
Aylmer, Co. Elgin, O., Aug 6, 1869.

JOHN ELLIOTT,
PHENIX FOUNDRY,

MANUFACTURER of Stoves, Ploughs, Reaper Machines Threshing Machines, Lap Furrow Ploughs Cultivators, Gauge Ploughs, &c., London, Ont. m-c

GLOBE FOUNDRY.

M. & E. ANDERSON, manufacturers of Cook, Box and Parlor Stoves, Oil Well Casing, and Agricultural Furnaces of the most approved patterns; Stove Pipe, Plain and Japanned Tin Ware, Cauldron and Sugar Kettles. Sale shop, opposite E. Adams' Wholesale Store, Dundas Street, London, Ont. m-c

PROVINCIAL EXHIBITION
OF THE
AGRICULTURAL
AND
ARTS ASSOCIATION
OF ONTARIO.

TO BE HELD AT LONDON,

ON THE

21st TO THE 24th SEPT., 1869.

Persons intending to exhibit will please take notice that the entries of articles in the respective classes must be made with the Secretary, at Toronto, on or before the undermentioned dates, viz:—

Horses, Cattle, Sheep, Swine, Poultry, on or before Saturday, August 14th.

Grain, Field Roots and other Farm Products, Agricultural Implements, Machinery, and Manufactures generally, on or before Saturday, August 28.

Horticultural Products, Ladies' Work, the Fine Arts, &c., on or before Saturday, September 11th.

Prize Lists and Blank Forms for making the entries upon, can be obtained from the Secretaries of all Agricultural Societies and Mechanics' Institutes throughout the Province.

HUGH C. THOMSON,
Secretary.

TO HORSEMEN!
NO HUMBUG!

HOW to make any Horse trot fast without the use of a Track, and a rapid cure for knee-sprung horses, Price \$1 each. On receipt of price full particulars will be forwarded. Address

PROF. JARDINE,
Aurora, Ont.

Mount Hope Nurseries,
ROCHESTER, N.Y.

THIS well-known establishment, founded 30 years ago by the present proprietors, and conducted ever since and at the present time under their personal supervision, now offers the largest and most complete stock in the country, embracing:

STANDARD AND DWARF FRUIT TREES,
GRAPES AND SMALL FRUITS,
ORNAMENTAL TREES AND SHRUBS,
NEW AND RARE FRUITS OF ALL SORTS,
NEW AND RARE ORNAMENTAL TREES.

The collection in both departments, useful and ornamental, is the largest in the U. S. Extensive specimen grounds are maintained at great expense, to determine qualities and insure accuracy in propagation.

Orders for large or small quantities promptly and carefully filled. Packing performed in the most skillful and thorough manner.

Small Parcels Forwarded by Mail when Desired

Nursery men and dealers supplied on liberal terms. Descriptive and Illustrated priced Catalogues, sent pre-paid on receipt of stamps, as follows:

No. 1—Fruits, 10c. No. 2—Ornamental Trees, 10c.
No. 3—Greenhouse, 5c. No. 4—Wholesale, FREE.

Address—
ELI WANGER & BARRY,
Rochester, N.Y.
1-in-sept-u-p

C. MOOREHEAD,

Manufacturer of Furniture, Upholsterer, &c. (Wholesale and Retail)

UPHOLSTERER, &c.
May, 15-u. King-St., London.

FOR SALE.

SOUTH ¼ of lot 25, concession 7, township of Beverly, county of Wentworth, containing 60 acres: about 45 acres cleared and fenced. On the premises there is a log house, log barn, frame stable, sheds, sheep and pig houses, a thriving orchard and a good well. Also the south ¼ of lot 23, same concession, containing 50 acres; about 25 acres cleared and fenced. On it there is a good frame barn and also a good well.

The property lies within 18 miles of Hamilton. Price \$2200, not less than half of the price to be paid down.

The above property may be exchanged for land in the Western Section of the Province.

Address,
ROBERT R. HUNTER
Kirkwall P.O. Wentworth Co.

SOUTH DOWN SHEEP FOR SALE.



One two Shearling Ram, very large..... \$40
 One do. do. \$25
 Thirteen Ram Lambs from \$35 to \$40
 Ewes per pair, from \$25 to \$40
 Ewe Lambs, per pair..... \$25 to \$40
 These are from one of the best flocks in Canada, of really pure bred stock. Specimens may be seen at the Provincial Exhibition. If you wish to procure a really pure bred animal, Address to

W. WELD, London. or to Erskine Irving, Newmarket.

That it is a good rule to sell your grain when it is ready.

That the first mellow soil in spring is your mellowest, and should first be put in.

That great changes of weather hurt cattle, as well as men.

That all of farming is summed up in the manure heap made on the farm.

AGRICULTURAL EMPORIUM.

We again call your attention to this undertaking. The seeds we have disseminated, are this year giving greater satisfaction than ever. We solicit the aid of each leading gentleman in each part of the country, to let the progress of the Agricultural Emporium be known, so that more may benefit by it.

CAUTION.

We noticed in some of the papers, a recommendation to put salt in bins of wheat when damp, and as there is much damp wheat this year some might be apt to try it. If you do so you will injure you wheat; it will not grind so well, and the flour will be inferior and it will not be worth so much in the market. We have frequently threshed damp grain, and the best way to keep it that we have found, is to mix the chaff with it.

TO OUR READERS.

The great drawback to a publisher of an agricultural periodical, is the great lack of correspondence. General newspapers have abundance and to spare. Why is this? surely not because political interests are superior to agricultural. Reader, you can materially aid an editor by giving him a bit of your practical experience. Now do not begin by using the excuse that you cannot write in a style suitable for a journal. This is not a valid excuse, for if you will send us the facts we will give it the style. There is not a man living who cannot instruct some one in some one thing, so you may become public benefactors and impart valuable information to some thirsting brain. We trust you will respond to our call and begin to feed the hungry, for all growers thirst for knowledge. Lend us a helping hand.

Application in writing immediately attended to. Letters should contain stamp for reply, and should state particulars of animals required, and about the price they wish to procure for, as stock can be had at all prices, as we can supply from several of the best breeders in Canada, and we know something about the different droves and herds, and can procure from others what we may lack in our own stock.

FURNACE-DRIED HAY.—Alderman Mechi writes to the London "Times" that he shall hereafter arrange to make his hay by furnace heat. The apparatus consists of a coke furnace, and a fan by which the heat is driven through a small chamber filled with grass. In fifteen minutes it is converted to hay, sweeter and greener than can be made by sun-drying. It works in all weathers, and dries grain, corn, and roots, as well.

THE CANADIAN LAND & EMIGRATION COM'Y
 Offer for sale on Conditions of Settlement,
Good Farm Lands

In the County of Peterboro', Ont.
 In the well settled Township of Dysart, where there are Grist and Saw Mills, Stores, &c., at

ONE DOLLAR AND A HALF AN ACRE

In the adjoining Townships of Guilford, Dudley, Harburn, Harcourt and Bruton, connected with Dysart and the Village of Haliburton by the Peterson Road, at

ONE DOLLAR AN ACRE.

For further particulars apply to.
 CHAS. JAS. BLOMFIELD,
 Manager C. L. & E. Co.
 Peterborough,
 Or to ALEX. NIVEN, P. L. S.,
 Agent C. L. & E. Co., Haliburton, Ont.

Visit to the Minister of Agriculture.

On the 10th of last month we called on the Hon. John Carling, at the Legislative Hall, Toronto. We found him fully occupied with public business of various kinds. He expressed his regret that he had not been able to devote his attention to our undertaking, but promised to do so. He complained of the many offices he had to fill, and justly so, as he had not devoted so much of his time to agriculture as he would like to. However, he promised to look into our undertaking and to endeavor to aid it in some way. He said he was aware of the great benefit to be attained by such an undertaking, that the whole country must be benefited by it, and was satisfied that the enter-

prise was deserving of public or private support. We explained to him what we had already done and what we were attempting to do; we also explained to him the loss we had to sustain by having our land and timber taken from us by the acts of the government, without remuneration. We explained to him the position of agricultural literature in the Dominion, the postage law, on the charges made on importing of stock for breeding purposes, and on the charges made for the transmission of seeds by post. He directed his secretary to write in regard to it, and ordered ten copies of our paper to be sent to his department. We hope by the next issue to give further reports of results.

WHAT AN OLD, EXPERIENCED FARMER ONCE TOLD US.

That the success of farming is in experience.

That to ask a man's advice is not stooping, but often of much benefit.

That to keep a place for everything, and everything in its place, saves many a step, and is pretty sure to lead to good tools, and keep them in order.

That kindness to stock, like good shelter, is a saving of fodder.

That to fight weeds is to favor grain, and do justice to your neighbor.

That in making home agreeable, you keep your boys out of the city.

That it is a good thing to grow into farming—not jump into it.

That it is a good thing to keep an eye out on experiments, and note all, good and bad.

CARTER'S DITCHING MACHINE.

The following is from the St. Thomas "Home Journal" of the 6th August, 1869.

An exhibition of this justly celebrated Ditcher was held this week upon the farm of Andrew Murray, Esq., Malahide near Aylmer, and its capability to perform the expensive and laborious, but truly profitable work of digging ditches for drainage fully tested. Mr. Carter has been for some time perfecting his invention, and has at last succeeded in producing a machine that will work admirably well. At the trial it started at work with four horses attached upon a stretch of ground about thirty rods long, at about half-past two o'clock, and in one hour and a half a nicely constructed ditch was finished to an average depth of nearly three feet. The ground being soft and wet, it was expected that the machine might clog, but such was not the case. The mud was thrown out as readily as if it had been dry soil, and the machine cleared itself in good style. About two-hundred of the leading farmers of the vicinity were present, and expressed themselves as satisfied with the work performed. Not one but pronounced it a success, and all expressed their gratification that a machine had at last been invented by means of which cheap ditching may be obtained. All were satisfied that the day of fifty cents per rod was over. A great deal of drainage of a very necessary kind has hitherto been omitted altogether, or indefinitely postponed, because of the expense, and on account of the time required. But now the matter will be cheerfully and profitably attended to, and we expect soon to see the ditcher brought into as general use as the reaper, thresher or plough.

ABOUT BUTTER.

The oldest mention of butter (and even that is an obscure one) is found in Herodotus, who says the Scythians "stir the milk of their mares, and separate that which rises to the surface, as they consider it more delicious than that which remains below it."—This, perhaps, goes no farther than cream, but Hippocrates, who wrote 400 years before Christ, and was almost cotemporary with Herodotus, writes of cream that when it is violently agitated, "the fat part, which is light, rises to the surface, and becomes what is called butter. The heavy and thick part, which remains below, is kneaded and dried, and is known by the name of *hippacc*. The whey or serum remains in the middle." Here we have butter and cheese satisfactorily produced at least two thousand years ago.

But it does not appear from Hippocrates, nor, indeed, from any of the ancient writers who mention it, that butter was ever used as an article of ordinary food. That learned Greek physician speaks of its emollient qualities, and prescribes it externally as a medicine. Strabo says that the Lusitanians used butter instead of oil; and *Ælian* mentions that the East Indians anointed the wounds of their elephants with butter. *Galen* writes, that "in cold countries which do not produce oil, butter is used in baths. *Pliny* recommends it to be rubbed over children's gums in teething, and also for ulcers in the mouth. *Plutarch* tells of a Spartan lady who smelled strongly of butter, by which it seems to have been used as a perfume or ointment. It is never mentioned by any Greek or Roman writer, as used in cookery or at the table.

The people of Germany appear to have known the use of butter at a very early period, though how early is not known. In that cold climate, both butter and cheese could readily be made and preserved, while in Italy, Spain, and other portions of Southern Europe, they are not even now

largely produced. As a substitute, the people of those countries have always been accustomed to the liberal use of oil, both for cooking purposes and for the table.

In the South of France, butter is sold in the apothecaries' shops for medical purposes, and one of the grievances recounted by travelers in Spain is that they can seldom meet with butter. In warm countries it is difficult to preserve it for any length of time, and it appears certain that the only butter the ancient nations possessed, was in an oily state and almost liquid. The Arabs are reputed to be the greatest consumers of butter in the world. A cupful of melted butter is an ordinary morning drink among all classes. *Burckhardt*, the Arabian traveler, says that the appetite for it is universal, and the poorest persons spend half their daily income in order that they may have butter at every meal. They make it exclusively from the milk of sheep and goats, while other nations use that of camels, mares, and other animals.—*Ex.*

HORTICULTURAL DEPARTMENT.

The commencement of this month is the season to plant strawberries. We have already in our columns given a detailed account of the "modus operandi,"—and so much is said about it on every hand, that no one need look far for information on that head. We will only say that generous cultivation with this, as with every other fruit, will repay the planter by both extra quality and quantity. If we mistake not, this season will have pointed to the necessity of draining in a way that none will overlook.—With the strawberry drainage is especially necessary, and we are inclined to believe that the labor saved in weeding, on well drained patches, will pay for all the outlay.

Gathering together what information we can from growers of this most popular fruit, we find that though varieties are almost innumerable, yet the choice lays with a few, and some of them, comparatively speaking, old varieties. *Triomphe de Gand*, an old standard European variety, still holds its position; large in size, fine flavor, good color, are qualities which recommend it to every one, and all that can be said against it seemingly, is, that it is not as good a bearer as the *Wilson*. Still it will average as many large berries to the plant as either the *Wilson* or any other variety that we know of, and is generally free from the number of small ones some kinds possess.

Dr. Nicaise, another European variety which made a great noise a year or two ago, seems to have no quality to recommend it except its enormous size. *Agriculturist*, another large and handsome berry, splendid grower, and very productive; it forfeits its apparent claim to unlimited praise, by being of poor, some say, wretched flavor, and too soft to carry.

Napoleon III—by report an emperor indeed among strawberries—grown alongside of one hundred of the best kinds America can produce, outstrips the whole of them.—Splendid color, firm flesh, fruit borne well up from the ground, and of the largest size. It bids fair to become a most popular berry.

Emperor Maximilian or Mexican Everbearing,—the latest humbug in the fruit way which has been attempted to be foisted upon us,—has been shorn of its fine name and figures

now as the common Alpine, much to the chagrin, very likely, of some who were tempted to pay a high price for it under its high-sounding title.

LA CONSTANCE.—One grower of this variety, we see by an exchange, complains bitterly of the fickleness of this variety, which should not be the case if there is anything in a name. No variety, he says, can have had its whims and humors more consulted than this, and yet a bed planted upon good soil, cared for in every way, and giving every promise seemingly of making a fair return for the trouble, yielded at last a few deformed and stumpy berries,—not one handsome fruit.

WILSON'S ALBANY.—More largely cultivated than any other sort; principally on account of its great productiveness.

GRÜMBLERS.

It has been often remarked and dilated upon, that farmers (no matter of what nationality) are the most grumbling and discontented beings of any occupation known, and are never contented with the weather or the crops. It is either too hot or too cold, too wet or too dry, or too much wind; in fact it would appear that if they controlled the weather themselves, and could cause sunshine to be in one field where they thought it required, and rain at the same time in the adjoining one, that this would not suffice, and would still be meeting some imaginary trouble half way, portraying things that are going to happen, and it would seem that something would be found to growl at. To prove how ill-grounded and utterly fallacious many of these arguments are, we will endeavour to point out a few, and see how far their predictions have been verified this season. In the winter, when we had such continual thaws, loud were the complaints that the wheat would be killed by these sudden changes and the intense frost, but time has shown this to be quite a mistake. Perhaps never in Canadian annals, was there such a universally heavy crop as the present is. Another one was, there is too much wet and cold, there will be no grain, it will be all lodged, get the rust in it, in fact be utterly destroyed, and many other objections were raised. Now we ask, has the prophecy as to the rain and cold supported their calculations? We say emphatically, no, but on the contrary it has been in every way beneficial; it has demonstrated as a fact, that we get we get far too much intense heat and drouth in Canada, for any of our grain crops to mature properly, and it is to this fact that our samples always appear so shrunk and shrivelled when compared to those grown in a moister climate. But this year, from what we have seen, we think Canada can compete favorably with any country in point of plumpness and yield. True, the rain has caused crops to lodge and get tangled in certain exceptional places, and it may be that a small proportion of hay, here and there,

is not so well saved as might be desired. But these are as a myth when compared with the advantages obtained. We are not going to deny but what the heavy rains during harvest has been the means of considerable anxiety and extra work to our friends, but it is but right at times they should have a little extra trouble in securing the harvest, as it will enlighten them as to the difficulty experienced by their brethren in countries of a moist and humid nature. But to counter-balance the rain, we ask, have we not much to be thankful for on this score? and we assert beyond fear of contradiction, that could we ALWAYS get a showery season like this one, we should have no complaints of those pests, the midge and the weevil; these ravages would be numbered as a thing of the past. Again, have we not a super-abundance of potatoes, turnips, and vegetable productions generally, as another set off to any little extra trouble or anxiety the wet has caused. There will be far more food for man and beast than what there was last year; yes, some may say, but the prices will be lower; true, but you will lose nothing as you have treble the quantity to dispose of, on the average, compared with last season. We have had the opposite of the two extremes of weather, the previous season it was the extreme of heat and dry, this one it is cool and wet, and we ask which is the most desirable?

Finally, we say, never despair; remember agriculture leads the world; everything lisp and hearkens to the voice of harvest; if it should be favorable it means cheap food and plenty of it, and consequently it gives an impetus to trade and commerce. We do well to do our best and never mistrust an all wise Providence, who has said that the seed time and harvest shall not fail. Let us endeavor as far as we can, individually, to do away with this stigma that is attached to us, that of incessant grumbling at the weather and the prospects. Let us do our best, and put in our crops in good season and order, trusting to the Almighty for the rest. Depend upon it we cannot err then. We congratulate all upon the bountiful crops they have, and our best wishes are offered for a continuance of them.

CAUTION AND REMARKS.

Beware of the Mexican Everbearing Strawberry advertisement or peddlers! Keep your money and do not waste your energies on such.

Patentees of new inventions generally make the cities a centre, and soon have their wares scattered. We have recently seen a patent churn and a patent washing machine, that will be of no use to farmers, but some may be silly enough to purchase the patent rights and will regret it. A patent force pump has been shown to us, and we believe

it to be the best kind of pump invented. We would prefer it to any we have seen. We have been shown a patent self brake for wagons; we think it worse than useless. A new patent gate was shown here last month and we prefer it to any patent gate yet shown to us.

Carter's Ditching Machine, we hope and believe, will become a useful implement. Will report on its working when we again see it tried. You may see it on the Exhibition ground. We anticipate a good, useful implement in Sells' rake and Self-loader; it will be on the Exhibition ground, look at it and judge for yourselves.

Geo. Gray, our celebrated plough maker, will have on the ground a double mould-board plough, having friction wheels instead of land sides. It works well; look at it when at the Exhibition.

We shall have the largest collection of tested grain ever exhibited in Canada by one person; look at it. We deem it of more importance than exhibiting our stock, and shall not exhibit an animal of any kind this year. We may give you our reasons in a future number. We were not granted the space of 20 feet by 10 feet to exhibit our grain, and therefore must confine ourselves to smaller space.

We shall be fully occupied during the Exhibition week, and if you have business with us perhaps you had better write than be disappointed and think that we are rude or negligent, at the time that we are fully engaged.

PROBABILITIES

Are that the wheat crop this year is a most luxurious one, consequently we may expect the price to be lower.

Also that the barley crop is first rate, and report says the price for this will be good, owing to its scarcity.

Oats are all that can be desired, and the price will be remunerative.

Peas plenty, consequently hog food will be abundant.

Butter, not too much of it, so the price rules high.

Root crops prolific, and all to be desired excepting potatoes, which are rotting badly in some places.

Fruit promises to be better than anticipated.

Hops, not too much of them, but they appear to be worth nothing.

Geese, scarce, in consequence of too much wet in the breeding season.

Hay plentiful, and of good quality generally.

Summary, that the prospects of the farmer was never more bright and the crops upon the whole were never excelled, and the result will be that they will have a goodly balance to the credit of their individual exchequers. Consequently we may reasonably hope that those who are in arrears

for the "Farmer's Advocate," will send us their subscriptions without delay, as we have a large and troublesome harvest to secure in this respect.

POINTS OF AN AYRSHIRE COW.

[Several years since the Ayrshire Agricultural Association, established a scale of points for Ayrshire cows, which was published under the authority of the Association. Subsequently, the following ingenious versification of the points alluded to, appeared in a Scottish paper:]

Would you know how to judge of a good Ayrshire cow? Attend to the lessons you'll hear from me now:
 Her head should be short, and her muzzle good size;
 Her nose should be fine between muzzle and eyes;
 Her eyes full and lively; forehead ample and wide;
 Horns wide, looking up, and curved inwards beside;
 Her neck should be a fine, tapering wedge,
 And free from loose skin on the undermost edge;
 Should be fine where 'tis joined with the seat of the brain;
 Long and straight upper line, without hollow or mane;
 Shoulder-blades should be thin, where they meet at the top;
 Let her brisket be light, nor resemble a crop;
 Her fore-part recede like the lash of a whip,
 And strongly resemble the bow of a ship;
 Her back short and straight, with the spine well defined,
 Especially where back, neck, and shoulders are joined;
 Her ribs short and arched, like the ribs of a barge;
 Body deep at the flanks; and the milk veins full and large;
 Pelvis long, broad and straight, and in some measure flat;
 Hook-bones wide apart, and not bearing much fat;
 Her thighs deep and broad, neither rounded nor flat;
 Her tail long and fine, and joined square with her back,
 Milk vessels capacious, and forward extending,
 The hinder part broad, and to body fast pending;
 The sole of her udder should just for a plane,
 And all the four teats equal thickness attain;
 Their length not exceeding two inches or three;
 They should hang to the earth perpendicularly;
 Their distance apart, when they're viewed from behind,
 Will include about half of the udder you'll find;
 And, when viewed from the side, they will have at each end
 As much of the udder as 'tween them is penned;
 Her legs should be short, and the bones fine and clean,
 The points of the letter being quite firm and keen;
 Skin soft and elastic as the cushions of air,
 And covered all o'er with short woolly hair;
 The colors preferred are confined to a few—
 Either brown and white chequered, or all brown will do;
 The weight of the animal leaving the stall,
 Should be about five hundred sinking offal.

TO THE PUBLIC.

We claim to have brought forward the most beneficial plan for the advancement of our general prosperity, as all must know that fresher seeds are required in each part of the Dominion, and there should be a place for importing, testing and disseminating them. Patents are granted to inventors and originators of new machinery &c., but to bring forward and establish an Agricultural Emporium and an Agricultural Paper are things that should not be overlooked by the Legislature of our country; and if the present monies for which we are now taxed, could be more beneficially used in aiding an establishment for such a purpose, than the mode now adopted for its expenditure, would it not tend to the advancement of our general prosperity? You have seen the high commendations our undertaking has brought forward from really practical men, such as county counsellors and agricultural societies, and they know what is really required for the country's good. We have labored unceasingly for years against the greatest obstacles, even where the greatest encouragement might be expected. We return our thanks to the numerous friends we have found throughout the Dominion, and hope each one will aid us in building up the Emporium, either by obtaining subscribers for our paper or introducing the plans to others.

HYBRIDIZING WHEATS.

The process of hybridizing plants consists in bringing the pollen contained in the anthers of one flower in contact with the stigma, or top of the pistil of another flower to be impregnated. This process is used for the purpose of originating new varieties, whether of fruits or vegetables or grains, but is still in its infancy. By means of hybridization the qualities of each of the original or parent fruit or grain are imparted to the offspring, making a new and it may be a superior variety to either of the parent varieties.

But little has yet been accomplished in hybridizing wheat by this artificial process of fecundation, and the intricacy of the experiment and the nicety with which it must be executed to insure success is likely to deter most persons from undertaking it. Still as by this process it is possible to secure new varieties of wheat, which ripen earlier, and are more hardy and productive than the present ones, it is important that it should be more generally understood. In these remarks, hastily and a little crudely brought together we will endeavor, by means of a few engravings to illustrate as clearly as we can the method of accomplishing it. Perhaps as much difficulty lies in the way of securing the proper conditions of the parent varieties, necessary to secure success, as in skilful execution of the work. We think more. The two varieties with which it is proposed to make the experiment must have advanced to the same degree of growth at the same time. Impregnation cannot be effected unless the flower of each expand or bloom at the same time. When this is the case with the parent heads of wheat, they being male and female, the time for the experiment is just before the anthers project out of the glumes. Select if possible, a warm still day, and operate in the middle of the day, which seems to be the time most likely to meet with success. Lest a spell of bad weather should occur, just at this time, and interfere with the process, it is well to have several varieties of wheat growing near together, ripening at different times. These will give the operator a number of chances if some should fail through bad weather. The anther must be taken out at the very time that it rises above the pistil, for immediately after this it bursts, discharges the pollen and fecundates the pistil. The operator should be provided with a magnifying glass, and a very sharp and slender pair of scissors, with which to clip out the anthers without bursting them. It is a simple but delicate operation. The experimenter should carefully observe the moment when wheat first comes into bloom to make his experiments. If the first attempt be unsuccessful he has opportunities to try again.

Experiments made in hybridizing plants have by no means confirmed the hybrid origin of forms apparently intermediate between other species, and which were once regarded as probable hybrids produced in a state of nature. The interference of man is usually necessary to effect an intermixture, and even then, though experiment has proved it possible, it is by no means of easy accomplishment. The predilection of the plant for pollen of the same kind appears to be very strong. If pollen both of the same and of another kind be applied to the stigma of a flower, the fruit is the same as if only its own pollen had been there. The hybridizer must therefore be very careful to cut away the stamens at the proper moment, and be equally careful that no pollen escapes from them, and that he deposits some of the pollen with which he wishes to impregnate.

With all the precautions he can take his operations will often result in failure.

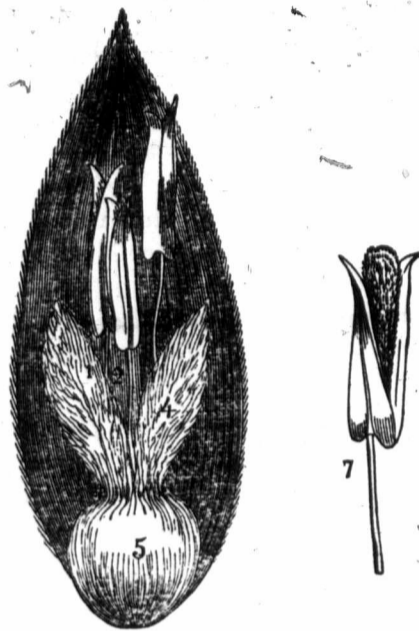


FIG. 1.

Engraving No. 1 correctly represents the interior view of a glume of wheat, the inner surface of the chaff or husk, and the interior condition of the glume at the proper moment for hybridizing, as it appears when magnified. 5 is the ovule, or the young wheat grain just forming. 4 represents the pistil, or female portion of the flower. 1, 2, 3, the anthers or male portions of the flower. These contain the pollen which impregnates the ovule. This also represents the exact time when the anthers marked 1, 2, 3, must be taken out of the flower in order to succeed in the experiments. If not immediately removed they burst, discharge their pollen, and resemble that marked 7. It is then too late. With the long sharp scissors the operator opens the glume as in Engraving Fig. 2, gently, and if the young plant appears as has been represented, it is ready to be



FIG. 2.

operated on. He cuts off the anthers at the places marked 1, 2, and 3, takes them out carefully so as not to burst them. When they are removed he produces the anthers from the wheat plants with which he wishes to impregnate the plant, partly bursted as in No. 7, in Engraving 1, and scrapes off the pollen with a finely pointed knife or a camel hair brush upon the pistils from which the anthers have been removed. After depositing the pollen from four or five of the anthers upon the pistils, he closes up the glumes or chaff care-

fully, to prevent other pollen from blowing into it, and to protect it from accident or injury. It is best to secure it by tying the ends of the chaff together at the top, by a silk thread, and letting it ripen. To increase the chances of success there should be a number of plants grown, so that several may bloom at the same time. They should be planted in rows, near together, so as to be convenient for the experiments.

When the plants, upon which hybridization has been attempted ripen, the seed should be gathered carefully, and sown where there is no other wheat near, and carefully observed. If it prove hardy and early, and partakes of the qualities of both parents it should be carefully sown again, and the results noted, until it be fully determined whether it be a hybrid or not. But if it presents no advantages over either of the parents, it is no true hybrid and should be discontinued.

It is thought that hybrids partake more largely of the qualities of the male plant than of the female. In hybridizing the pollen should be taken from the best and hardiest varieties, as it is more likely to produce a valuable hybrid. The question of continued fertility, or endurance of hybrids is one having important relations to this subject. Most probably, like the parent plants, some will deteriorate speedily, while others will grow better by use, and last a long time. It is to the advantage of wheat growers to have a variety of hybrids, and select from them those which experience proves to be the best in point of quality, productiveness, hardiness and earliness. The best white and amber wheats grown in the country are believed to be accidental hybrids, and have established their superiority over all others.

In conclusion I may add that the successful experimenter is one who is not discouraged by repeated failures, and is willing to try again year after year.

This is especially essential in hybridizing wheats. Some seasons unpropitious weather causes failures. Again after the experiment has been performed under favorable circumstances, a long time is required to prove the work, to determine if the results are real hybrids, whether they are profitable, and possess the qualities that are sought.

Mr. G. A. Deitz, editor of the "Experimental Farm Journal," is practically experimenting in Hybridizing. He has kindly lent us the accompanying illustrations. His paper is edited in Chambersburg, Pa., and is only \$1 per annum.

WHEAT BLOSSOMS AND THE WHEAT FLY.—Mr. T. Ross, of Bachelton, Perth, says in a recent letter, that the want of grain in the ears of wheat is not owing to the wind blowing away the blossoms. "Whenever the blossom appears inside the chaff or husk, the sooner it comes off the better, whether blown by high winds or otherwise. It is when

the blossom remains inside the chaff or husk too long that all the mischief is done; and moreover it is invariably in quiet dull weather that the wheat fly (one of the wheat farmers' greatest foes) is best able to deposit its eggs, to hatch its young, and bring forth for the destruction of future crops whereas in the critical blooming season, if we have a blow of wind, we escape such a result comparatively.

PREPARING LAND FOR WHEAT.

In growing wheat there are few things of more importance than a thorough preparation of the ground for the seed. Not only should it be well plowed, but thoroughly worked with the harrow and wheat cultivator or gang plow. The plow or cultivator must be used when the ground is hard. Summer fallows broken up early in the season, when the land was rather wet, may be dried down hard, and need plowing to again work up fine and mellow. But when land has been recently plowed, and is not baked, the harrow and cultivator will put it in fine condition.

There is great advantage in the frequent use of a good harrow. It works land down into that fine, mellow, rather compact condition, that, while it is not in the least hard, it is the very best state for wheat. It is much better than the loose, spongy condition, sometimes produced by too much plowing. When a tough sward is broken up after dry weather has set in, in the summer, harrowed once or twice, and then cross plowed in August, the sod not being thoroughly rotted, will in pieces of various sizes made up of a mass of dry roots and stems, be mixed through the soil, keeping it in a light huffy condition, not easily worked down, and in which wheat is more liable to injury from freezing out. Dry stubbles also often plow up loose and huffy, and liable to the same difficulty. The best remedy for this is frequent harrowing. A good 48-tooth harrow will work down such land into a proper state better than anything else. Then, if after laying a week or two, the land needs more working, put on a good wheel cultivator, and work it up four or five inches deep, when another thorough harrowing will make it in fine condition. A good roller will help work down such land, but the effect is not equal to that produced by the harrow. It leaves the soil looking very smooth and fine on top, but don't put it in as fine and good condition all through, for the fine roots to penetrate, as the harrow.

When any sward is broken up deep enough to furnish a good seed bed in the soil turned up there is seldom any advantage in bringing the sod back to the surface. A thorough working with harrow and cultivator, frequently makes a better preparation on the sod than can be secured by cross plowing. This is especially the case when clover is plowed rather late, or any sward is broken up after harvest. Then, as the sod will not be rotten enough to work down fine, it is far better at the bottom of the furrow. It is also of some benefit there, holding the soil well together, while it prevents baking down on the subsoil; and, when plowed in the proper direction, leaves room at the bottom of the furrow for surplus water to work off.

When a summer fallow is broken up early, and the sod is so rotten that it can be worked down as fine, there will be less difference. Then cross plowing once or twice—twice is best—with sufficient harrowing, will make the land in good condition. Still, in such cases, the more harrowing the better, for there is nothing like a good harrow to put land in the best condition for wheat. With shallow plowing, say four or five inches deep, this course is often the best. But when broken up from seven to ten inches deep, as nearly all good wheat land should be, once plowing is generally the best.

August is the best time to manure for wheat. After land is brought into fair condition, so a good cultivation and harrowing will make it all right for the seed, then apply from twelve to fifteen loads of well rotted manure per acre. This manure must be spread very fine—it should be so thoroughly broken to pieces and distributed that none will impede the cultivator or harrow. When well spread, it is not

only more benefit to the crop, but saves time, as it costs more labor to be frequently stopping to clear a clogged cultivator or harrow, and spread the bunches thus drawn together, than to thoroughly do the work in the first place.

Manure, well rotted, does the most good when applied in this way. If not well rotted, it must be plowed in, as coarse manure cannot be well worked in with the harrow and cultivator. If partly rotted and plowed under four or five inches deep, with a narrow furrow, turning less to the bottom, and leaving more between the furrows, it will do very well. Then a large portion of the manure is near the surface, where it will soon benefit the young wheat. A leading object in surface manuring is to give the young plant a good start, secure a good growth and strong roots in the fall, and thus put wheat in the best condition to stand the winter and spring, and to finally make a good crop. It is also a great help in securing a good seeding to clover with the wheat. Coarse manure, plowed under a deep furrow, can be of little benefit in this way, and is of doubtful advantage at the best. If lightly plowed under, more or less will work out and interfere with subsequent cultivation, and may seriously obstruct the working of the drill. All manure should be so prepared and applied as not to interfere with the operation of a good wheat drill.—*Country Gent.*

PROSPECTIVE POVERTY.

The one great question with Canadian farmers is, or should be, how to retain the fertility of the soil? The rapid decrease in the production of staple crops in the United States, and even in sections of our own country, teach us the necessity for staying the destructive inroads that are being made on the cropping capacity of our lands. A radical reformation must be made in our system of husbandry. Under the present plan, the richest soil will eventually run out. We can trace our present over cropping to the original wealth of our soil. Farmers seem to think that there is no limit to its endurance, and this has fostered a most improvident system of culture, and made a most fearful reduction in the annual yield. If we do not change this, it will tell upon our material prosperity, and the barrens of Virginia and Georgia, will find their duplicate in the Dominion of Canada. Tobacco is not alone the only crop that possesses the power to blast the fertility of the soil, and unless we introduce, to certain extent, the elementary principles of European farming, we will find our average yield growing "beautifully less." The rotation system is a powerful adjunct in preserving the fertility of the soil. Its value is proved in its adoption by those nations that have taxed the resources of their land for centuries. Is it wisdom for us to delay its adoption until the productive energies of our land are prostrated, and a straggling clump of wheat here and there over our fields, stand as monuments of our folly? Prevention is better than cure. We must check the wasteful extravagance of manure, and realize the fact that we must restore a portion of the elements taken from the soil by the growing crops. It is well enough to sneer at the system of artificial manures, but the fact remains that, theory or no theory, unless something is applied, the land is soon exhausted. The motto of too many is, "let the future take care of itself," but we contend that a judicious and economic use of man-

ure, not only preserves the fertility of the soil, but pays in immediate returns. How few farmers have proper conveniences for preserving the fertilizing elements of barnyard manure. Large heaps are allowed to mingle their most valuable elements with the waters of some storm-born stream, and their value is lost. Huge piles of straw, instead of being used in littering cattle and applied in the form of rich manure, are removed out of the way by the match, and a small patch of rank growth, is all there is to show for what might have produced bushels. There must be an increased breadth in roots and grass, as these will promote the house-feeding of stock in winter, which apart from the increased value of stock, will cause the saving of greater percentage of manure in its most valuable form. We will not elaborate on this idea at present, although its importance cannot be overrated. As a people depending on agriculture, everything that has a bearing on the development of our resources and their unimpaired preservation, is of vital importance. We simply give it as our opinion that a change is necessary, and believe that all who give the subject serious consideration, will agree with us.

DRAINAGE.

No settler can, unassisted, drain his land. There must be a general system, adopted by the country, for a universal drainage by providing such off-take drains as shall be sufficient to discharge all the water which may be received from the side ditches constructed by the settlers. Here is a case in point. The Township of Sandwich, East, dug a very good ditch for carrying off the waters of the Grand Marais, which they extended as far as the Gravel Road—the Westerly limit of the township. The adjoining municipality of West Sandwich, neglected, or refused to continue the ditch, so that the East Sandwich ditch is, for the present, absolutely useless.

In the townships, the making of drains is entrusted to men, very deserving ones, no doubt, yet perfectly ignorant as to the system required. For instance, Councillors will let a ditch specifying that it must be two feet deep and four feet wide at top; this without reference to the inequalities of the ground; the ditch, therefore, runs up hill and down dale, or rather, does not run at all.

The width of a ditch must be limited by its bottom, not its top width. This latter must be regulated by the slopes given to the sides. In ordinary soil, the slope that the earth will finally take, naturally, is one foot and a half horizontal to each foot of perpendicular depth; so that a ditch four feet wide at bottom, (main drain should never be less) and six feet deep would require twenty-two feet for top width. The bottom of the ditches should be on an even grade towards their outlets, of not less than four feet to the mile. Half the ditches in the country are made with sides almost perpendicular; the consequence is that the action of frost and water cause them to cave in and render them practically useless. All these things should be done under efficient superintendence. The motto in such cases is "Method, METHOD, METHOD!"—*The Dominion.*

A Missourian informed a traveler, who inquired about his corn, that each stalk had nine ears on it, and was fifteen feet high. "That's nothing to ours," replied the traveler. "Up in Illinois, where I came from, we always had nine ears to each stalk, and a peck of shelled corn to each tassel; but we could never raise any field beans with it." "Why?" "Because the corn grew so fast that it always pulled the beans up."

REAPING MACHINES.

Among the new machines being exhibited at the Royal Agricultural Society of England, at Manchester, is a new reversible combined reaping and mowing machine, invented and manufactured by Harkes of Thamesford. This machine will cut either to the right or left, according as the crop lies, performing its work in a most beautiful manner. It has a double toothed knife. The Beverley Wagon Co. has a two horse double self acting swathe delivering machine, by which a crop can be cut in any desired direction, and performs its work well. An American Mowing Machine is invented by Cullman & Miller, and exhibited by Bingham & Bickerton of Berwick. This is adjustable to any quality of land; the finger can be raised or lowered or altered, if one wheel gets into a furrow, and can be thrown over the machine without being put out of gear. This mower is provided with a seat capable of being regulated, and the seat forms a cover for the machine. A similar implement is also constructed as a combined reaper and mower. The reaper trials at Manchester, have not been altogether satisfactory, and public opinion does not, so far, point to any award in favor of any particular exhibitor; in fact, more especially during the earlier part of the week, the arrangements have been by no means well carried out. The implement stewards appear to be utterly helpless, and the crowd did just as they pleased—went where they liked and when they liked.—MARK LANE EXPRESS.

UNDERDRAINING.—Mr. John Williams, of Southwold, contributes his experience in underdraining as follows. — After describing the character of the soil—a stiff clay, impervious to water—and detailing his grave difficulties in managing it, he goes on to say:

"There is but one remedy; but thank fortune one remedy was sufficient, and that was to get rid of the surplus water which seemed to be the cause of so many evils. I commenced underdraining; laid upwards of three quarters of a mile of tile the first season at a venture. They were principally two and a half inch tile, but we also laid a few of the two inch and a few four inch. The result, as witnessed at the harvesting and threshing of the first crop on the underdrained ground, so far exceeded my most sanguine expectations that I have since continued the drains in other fields and do not intend to stop until the whole farm is dealt with in a similar manner. The largest drain at present in operation on my farm consists of two six inch tiles, placed side by side, with a four inch above them. I expect, as soon as possible, to put in a drain with three rows of six inch tiles, which will be the outlet of all the others. The following are examples of

the result of my experience in underdraining, in regard to yield of grain. The ordinary yield of wheat on my farm was formerly from fifteen to seventeen bushels per acre, so that on a field of sixteen acres I might expect two hundred and fifty bushels of wheat. The first year after I commenced draining I harvested from sixteen acres four hundred bushels of wheat, being an increase of one hundred and fifty bushels on former crops. The value of this amount of grain more than exceeded the total cost of draining the field, and, as we have reason to expect better crops from the said field in future than it formerly yielded, the profit resulting from draining this field must be immense. It is a well known fact that many fields have suffered to great extent from the great quantity of rain that has fallen during the present season. My peas were sown this year on a field which was all underdrained a few months ago, with the exception of one small corner, containing about half an acre.—The peas on this half acre are now almost totally spoiled by wet, and the few that remain are of a pale, yellow, sickly color, and will hardly return as much as the seed sown in the spring, while those on the drained land are exceedingly thrifty and well loaded, not a sickly vine appearing on ten acres. Now, with regard to durability of underdrains, all I shall say is that there is no fear of them wearing out in a man's lifetime, but they seem to get better year after year; and the satisfaction obtained from walking on dry ground, instead of wading through water and mud each spring and fall, is certainly very great.

HINTS FOR SEPTEMBER.

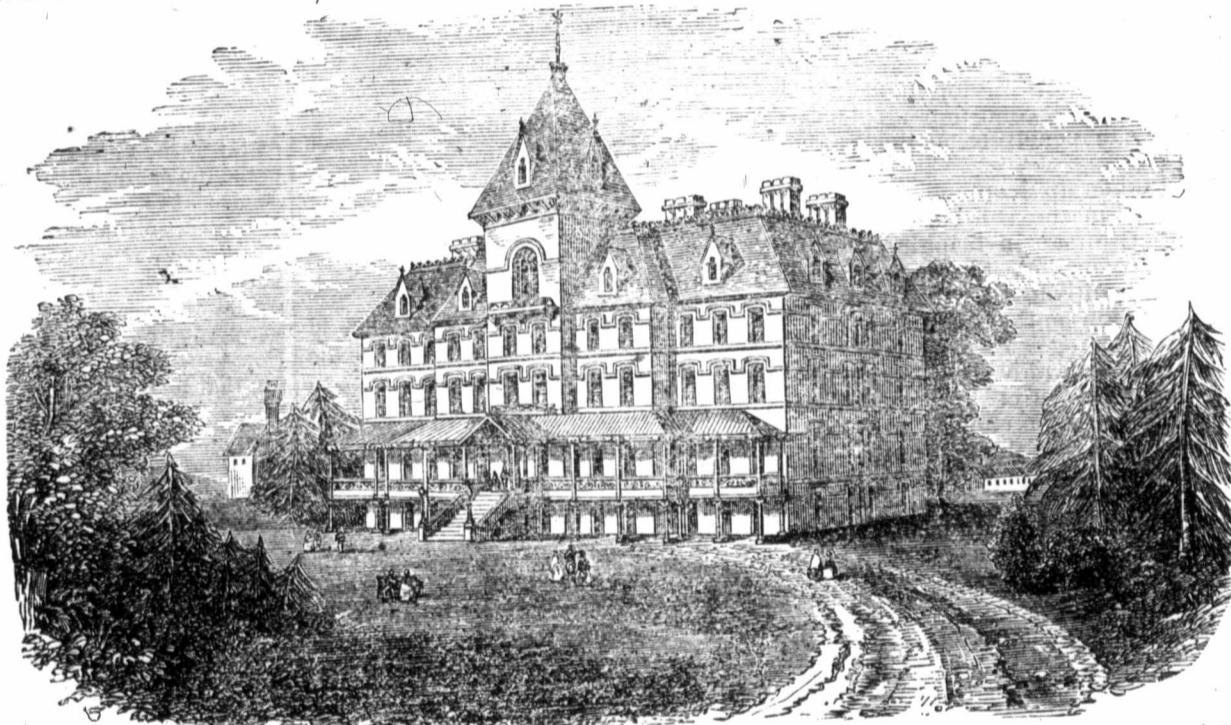
This month is the time to prepare ground intended for planting. Drain by all means where it is intended to plant fruit trees; and if it can be managed, subsoil also, thus putting your ground into the best possible condition to withstand either vicissitudes of weather, extreme drought, or excessive wet.

Whenever the fall rains arrive, say early in October, plant. Do not wait for the leaves to fall, but cut away the shoots that bear them, woods, leaves and all—the trees should be severely pruned at any rate. Sow seeds of all the different kinds of perennials, if not done last month. Sown now, they will flower next season.

Whenever Dutch bulbs can be obtained, they should be planted at once. Well rotted cow manure, dug with a soil neither too dry or too wet, is found to be the best for them, especially where there is an admixture of sharp sand. Plant about four inches below the surface, and put a little sand about the roots when planting.

Cuttings of all the soft, wooded, budding plants, intended for in-doors in winter, can now be struck by putting them into a bed of sharp sand soil, (river sand is the best) covered with a sash or hand glass, and placed in a shady place, or the glass white washed.

ALEX. PONTEY.



LADIES' SEMINARY.

This city is now becoming celebrated for its colleges. The above engraving represents the latest erection, and a handsome edifice it is. It is for the education of ladies. Besides this there is the Huron College for ministers, the Collegiate Institute for other professions, and the Commercial College for general business.

In one of the German States, there are 74 bee-hives on an average on every square mile. This is more than a hive for every ten acres. Suppose we had a hive to ten acres on our farms—would we care if white sugar is 12 cents a pound?

"Make way! make way, good people! I'm exceedingly cramped for space!" This was the exclamation of a poor worm, that had a whole field to himself, and acres to spare; but he wished the impression to go abroad, that he was ten times as large as he seemed to be. There are many people in this world who act just like this poor worm.

Extract from P. Lawson's account of Cocksfoot Grass. Mr. Lawson, Seedman

to the Royal Agl. Society of Scotland:—"Cocksfoot Grass—*DACTYLIS GLOMERATA*—Called in America, Orchard Grass. Sheep remarkably fond of it. Grows well in moist places, and where shaded by trees.

ANSWER TO INQUIRIES.

L. B.—The Franconian Raspberry we think will suit you—later than the Blackberries. Mr. G. Leslie of Toronto, has a very fine lot. The plants are very vigorous and very prolific, yielding far more profit than strawberries. They sell at 25 cts. per quart in Toronto, being very large and fine, and surpassing all the new kinds of raspberries; and he spares no expense to try plants. We can supply you with the plants, either this fall or in the spring, which you may prefer.

From Supplement of Farmer's Advocate, Aug. 24.

FALL WHEAT SEED TEST.

The land on which we have tested the following grain, has been good, strong clay land. The field contains ten acres well cultivated summer fallow. The largest portion is

TREDWELL which wheat this season appears to answer the best. It stands the winter well—the straw is stiff and stands well for the reaper, except a very few spots. The grain is good, well filled, and of a dull white color, the heads are long but half bald and half bearded. They both ripen and grow alike, and the grains can not be detected. We mentioned this peculiarity when first we introduced this wheat. There is a dispute regarding its being impossible to separate it. Two parties inform us they have the varieties now distinct—other parties have selected the heads and sown separately, and they inform us that the bald heads produced some bearded heads and the bearded has produced bald heads. This peculiarity was mentioned to us of its irreperability, and we did not test that question, but were quite satisfied about the superiority of the grain. We leave this point for further remarks, perhaps some other farmer will solve this question. We believe this wheat on good clay land has given better general satisfaction than any other that is procureable in any quantity. This wheat is about eight days later in ripening than the American Amber. It is slightly attacked in some instances by the midge, but even by losing a few grains by the midge, the length of the head and number of kernels, the superiority of color and the standing quality of the straw make it sought after much more than any other variety that is generally known.

Many condemned us for our laudatory remarks of it, and called it a humbug and a swindle when we disseminated it by small packages or at \$3 per bushel. This season, many regret they had not procured it, as it has stood the winter well, is strong in the straw, of superior quality to the Mediterranean or Midge Proof, yielding a large crop and will sell at a higher price, besides costing from \$1 to \$2 less per acre to harvest. Our fields on which it is grown have never had a wild oat or Canada thistle in them. Perhaps the weather may have dimmed the color slightly, but we can safely recommend this as seed, and can supply the crop from twenty acres. We can command much more from others to whom we have supplied the seed, but will not vouch for the purity of other person's raising if we have not seen it. In procuring seed it is of great importance to be sure and not introduce Canada thistles or wild oats.

MEDITERRANEAN WHEATS.—We have four distinct varieties of this wheat; they are all bearded, the principal difference being in the color of the chaff and straw. This is an old and well tried variety, and is to be found on the farms of those farmers that are behind the times, and never take up any new thing unless it has been well tested by their more enterprising neighbors. It has large coarse grain, although it is now much improved. It yields a tolerably good crop, and perhaps for inferior farming and on low, wet land it may answer better than finer varieties. Until superior wheats were introduced, it answered a good purpose and should not yet be totally dis-

carded. It is rather apt to crinkle and lodge more than some varieties.

THE AMERICAN AMBER WHEAT of what is generally known as the midge proof, is yielding well. It is not entirely midge proof; we know of no wheat that is. We have seen midge in it but have never seen a crop of it much injured by the midge. Most persons in our vicinity having good, well cultivated clay lands, are rather dissatisfied with it, because it has been so badly lodged, preventing the full maturity of the berry and causing a very great additional expense in harvesting. Tredwell in the same field, sown at the same time, was all taken off with the reaping machine, but the machine had to be abandoned in taking off the midge proof. Many pieces we know of have been cut with the scythe, the cradles, even, having been abandoned; still on light, sandy soils, there is not such reason to dread the lodging, and on such lands we think it may often be preferred to the Tredwell. We believe there will be a larger breadth of American Amber and Tredwell wheats sown than of any other kinds. Tredwell is most suitable for clay soils, and American Amber for sandy soils.

DEIHL'S WHEAT, known in many sections under the name of White Midge Proof, is short in the head and closely set; it is round, short and plump in the grain. The straw is moderately stiff, and with us it has done well this year, much better than last. We deem it rather more liable to the attacks of the midge, than the fore named wheats. There are many that prefer it. This wheat requires early or quick growing land, and if it matures early it will yield a large crop of fine wheat; on late, cold lands it is apt to rust and to suffer much from attacks of the midge. This wheat deserves a trial in each section. In some sections it is now preferred to the Tredwell. We have, at a very great expense, proceeded with our testing, importing, and disseminating of grain. The results of this year's harvest have crowned us with success.

WEEKS' WHEAT is bearded; appears much like the Mediterranean, but stands well in the ground. The grain is white, plump, and large. This wheat deserves extended trial. If anyone in Canada has any to spare, please inform us at once.

CALIFORNIA WHEAT is very long in the head, bald, much of it winter killed; badly attacked by midge, rust, and condemned.

BOUTON WHITE short in the head; short, plump, white grain. Straw stands well. Eight days earlier than any other variety tested. Deserves further trial.

SADONICA—Good mottled grain, very fine and stiff in straw. Stands well, rather long in head, and bald. Deserves further trial.

LANCASTER RED GRAIN—Dark in color, stands winter well. Might be tried again.

SAKONKA—Badly winter killed. Grain most inferior. Condemned.

BERDENSCA from Russia.

AMBER WHEAT, bald, long in head. Good grain. Deserves further trial.

SALA RED from Saxony, has long, bald head, but very downy grain—Inferior. Condemned.

BOHEMEAN BALD WHEAT badly rusted.—Condemned.

AUSTRALIAN winter killed.—Condemned.

Four kinds of English White Wheat, the finest samples sown, winter killed. Two kinds of Red Wheat, very fine samples, both winter killed.

The Kentucky Midge Proof—Moderate, but open head. Good grain. Deserves further trial, although it has not stood the weather as well as some other varieties.

The wheats for this falls sowing will be the Tredwell, Deihls, the American Amber, and the Mediterranean.

Each of these kinds are answering well. Some of them are preferred in some sections, and condemned in others, and neither should be totally depended on as being the most suitable, as the seasons and localities, and attacks of the midge, vary very much. We commend the trial of new kinds only in small quantities. Should any new kind answer well, it will soon increase, and the cost or loss cannot be much; and if you are careful in procuring a small quantity, you can easily take away any impure seed or weed, which cannot be done so easily in a large field; and the small quantities disseminated by us, will be the purest and most carefully selected. It is much to be regretted that we are unable to find in Canada or the States, as clean and pure varieties as we should have, nor are our own as good as we wish to have them. We can but supply the best we have, and when we can find any better, we disseminate it. We have spared neither time or money to endeavor to procure the best.

See next issue for Spring grain.

P. S. Since writing the above we may add threshing has been done, and the Tredwell has not yielded in this vicinity quite as well as anticipated, but in many Counties it stands the best. The Deihl has yielded largely in this vicinity.

AGRICULTURAL ITEMS.

The only thing to increase the length of a colt's mane is to keep the roots perfectly clean, and frequently comb and plait it.

A correspondent of the countryman says, giving a sow a slice of salt pork each day for eight or ten days before farrowing will prevent danger from her eating her pigs.

Mr. Joseph Harris expresses the opinion that indigestion is the source of nearly all ordinary complaints in horses, and that this is brought on by irregular feeding and watering; by exposure, fatigue, by long journeys without food, in a storm, and then by over-feeding and neglecting to rub them dry before leaving them for the night.

Information from the principal grain districts of California indicates that the wheat crop, though large, is below the average yield per acre. A considerable portion of it, either through thinness or rust, will not pay to harvest. In Oregon the crop is greatly in excess of any previous year, except in the Walla-Walla region.

To make a rat and mouse-proof house Mr. J. M. Hartwell, of Colebrook, N. H., tells the New York Farmers' Club to take some mortar and bricks, and after the frame of the house is up and boarded and the partitions set, lay one or two thicknesses of brick between every stud, both on the lower and upper floors. Then lath and plaster to the floors, and put on a narrow mop or washboard, not so high as to have the upper edge come above the brick. As the rats and mice gnaw in, just over or under the washboards, bricks thus laid will make the house rat and mouse-proof, at an expense of \$5.

VALUE OF WHEY FOR COWS.

Mr. Willard reports in the Utica Herald, the experiments of Mr. Hamlin, a dairyman of that region, who has been in the habit of feeding his cows whey, and believes it of considerable value in increasing the quantity and improving the quality of milk. The cows are fed twice a day, and two pails at a feeding. The patrons of his factory have been somewhat dissatisfied with this whey feeding, believing that the quantity of milk was increased in about the same proportion that quality fell off, thus making it decidedly an unfair partnership.

So many hints were given and so much was said about the matter, that it was determined on the part of Mr. Hamlin, to have the matter tested, and if it could be shown that the quality of milk become so much depreciated by feeding whey as it was claimed, then whey feeding should be abandoned. He suggested, therefore, that a committee of patrons meet at the factory, August 12th, and Hamlin's milk was kept separate from that of the company's. The milk of both parties was then tested by the Hydrometer, and stood as follows: Hamlin's ninety-seven degrees, and the company's ninety-three degrees. Although the instrument showed Hamlin's milk to be four degrees richer than the company's, the committee were not satisfied, and a further test was demanded.

Two hundred pounds of milk from each of the parties was then taken, and made up separately into cheese, the milk of both being treated alike. The process of manufacture was as follows:

Milk set at 80 degrees—first scald 85 degrees, stood thirty minutes, then raised to 101 degrees, stood three hours—company's cheese weighed 224 pounds, making two pounds of cheese in favor of whey fed cows. The cheeses were placed side by side in the cheese house, and are to be further noted during the process of curing.

Experiments of this kind are interesting and valuable, and it is the only one on record where exact figures have been reached in regard to the value of whey as a feed for milk cows. We examined the cheese with considerable interest, and have the promise from Mr. H. to report further as the process of curing shall have been completed—all of which we hope in due time to make public.

NEW CLASSIFICATION OF WHEAT.—A new classification of wheat has just been adopted by the Merchant's exchange, of St. Louis, and went into effect on Wednesday last. Its features are as follows:—

"All quotations made according to this classification are to be known as of bulk fall wheat in elevator, other quotations will be known as wheat in sacks; choice white to be bright, sound, dry, plump and well cleaned; pure white winter to weigh at least 62 pounds per measured bushel; No. 1 white to be sound, dry, well cleaned; pure white winter wheat to weigh at least 60 pounds per measured bushel; No. 2 white to be sound, dry; white winter wheat, reasonably cleaned, and to weigh not less than 59 pounds per measured bushel; No. 1 red to be sound, well cleaned; dry red, or red and white mixed winter wheat, free from rye, to weigh at least 60 pounds per measured bushel; No. 2 red, to include all sound, dry, reasonably cleaned red, or red and white mixed winter wheat, below No. 1 red, and weighing not less than 59 pounds per measured bushel; No. 3 red, to include dry red, white, or mixed thin or bleached winter white, free from must, weighing not less than 57 pounds per measured bushel; choice red to be bright,

sound, plump, dry and well cleaned red, or red and white mixed winter wheat, to weigh not less than 62 pounds per measured bush. Rejected—all damp, tough, either smutty or unsound wheat, of any weight, and all light, trashy or dirty, thin wheat falling below No. 3 in wheat.

Miscellaneous.**The Australian Wild Horse.**

"The wild horse of Australia," says the Avoca Mail, "will unquestionably at no distant date, like the mustang of the South American pampas, occupy in vast numbers the almost boundless plains of the interior. On the South Australian border, in Victoria, where some few years ago wild horses were comparatively few in number, large herds are now to be found. During periods of great drought these herds travel great distances in search of pasture, and on some stations detract considerably from the value of the runs to the north-west. The neighborhood of the melee scrub at the present season appears to be a favorite resort for wild horses. Feeding on the plains in mobs of 15 to 30 mares, with colts at their feet. The sire, a stallion whose progeny are usually of one color, is most careful of his family on the slightest alarm leading his charge at full speed under the shelter of the almost impenetrable scrub. Several successive mustering of these steeds of the plains have been made of late, we are informed, and of the colts broken and sent to the market, but from the cheapness of horse flesh all over the Colony, the speculation had not paid. Many hundreds have been shot at the various stations, apparently without reducing their number. Wild cattle in the neighborhood of the melee scrub have also become a complete nuisance. On the sheep stations beef of excellent quality is supplied all the year round as rations to the men employed. The wild cattle are hunted like the Buffalo of the North American plains, and are said to be gradually increasing in numbers and spreading towards the far north. The most astonishing circumstance attached to these wild herds of cattle is, that notwithstanding on the stations near their haunts sheep and other stock are dying very fast from the effects of the drought, these denizens of the plain appear in excellent health and as sleek as moles. A most beautiful sight it is to see a large mob of wild horses startled on the plains, galloping at full speed, their unkempt manes floating in the wind, the speed of which they seem to equal, their tails sweeping the ground—they present to the eye a perfect embodiment of beauty and freedom."

COLORING FRUIT.—A correspondent of the *Dixie Farmer* writes:—Highly colored fruit is more admired generally, and I think is more luscious, certainly sells higher and more readily, than fruit deficient in color. Then we ought to grow fruit highly colored. The locality of the orchard has much to do with it, agreeably to my observations. When a physician is called to a patient, pale, feeble, and debilitated, he prescribes iron in some form; so in highly colored fruits, iron must abound in the soil. Very deep red clay underlies one ridge in the orchard; under another the clay was not so red, (the red in the clay is certainly imparted by oxide of iron.) The fruit on this red clay is more highly colored than on the lighter.

Some ten years ago I applied anvil-dust, cinders, etc., to the soil under certain apple trees; the effect for several years was more highly colored fruit than formerly, the streaks as finely drawn as if penciled, with a uniform waxen appearance. This was an experiment at home, to prove to myself the effect of iron on coloring. Now, if these views are correct, (and I believe they are,) a deep red clay, heavily charged with

iron, is indispensable in growing highly colored fruit, or we must supply the iron at considerable cost and trouble, to furnish the coloring matter.

DESTROYING STUMPS.—The Baltimore "Leader" suggests the following method for getting rid of stumps without making a large hole in the ground:

"We have heard of two methods of getting rid of stumps, which, as they appear feasible and inexpensive, we hope some reader will try and report upon: Bore with a two-inch auger to the heart of the stump; fill the cavity thus made with sulphuric acid, or with crude oil of petroleum. In the first case, the acid becomes the destructive agent within a few months; in the latter, when the stump becomes saturated with the oil it is fired, and will then burn out to the last particle, like a candle."

ORIGIN OF PRAIRIES.

We have always regarded Dr. Cooper's rainless theory of the origin of prairies as conclusive. As we go westward, no new forms of trees appear, while the number of those found farther westward rapidly diminishes. In the forests of the coasts, about 120 kinds of trees appear; 90 reach to the Mississippi, but only 8 or 10 struggle as far as western Kansas. The desert sage, the cactus, salt lakes, and saline effluences upon the soil begin to appear as the trees are lost in longitude 95° to 97°; till, when Nevada is reached, solid salt is found from six inches to three feet upon the plains. The forests fires upon the borders of the treeless tracks are themselves intensified by the dryness, which is the cause of the total absence of trees a little farther to the west; and the border regions of oak openings in which they prevail, where the plains are dotted with clumps of trees, which rise not from the underwood, but from the grass, are of the same character with the half-wooded plains of the back country of New South Wales where the climate is the same. Thunder showers must be left out of our consideration, as they have little bearing on the growth of trees, but the winter moisture appears of itself a sufficient test in almost every case of whether trees will or will not grow without irrigation in a given spot. On the Atlantic seaboard of the Northern States the winter rain fall is ten inches; in Michigan it is less than four; on Western Missouri it is less than three; in Western Missouri it is one inch; in San Francisco it is nearly 12. As a result, we find an abundant growth of wood at San Francisco and New York, oak opening in Michigan and Western Missouri, and a treeless tract in Western Kansas; although the total rain-fall of the year in the latter case is as great as it is in San Francisco, and all but as great as in the forests of Central New York. On the other hand, the summer rains of Colorado maintain a rich and valuable grass throughout the summer, and prevent the drying up of the rivers after the melting of the snows.—Atheneum.

Give your children fortune without education, and at least one-half of the number will go down to the tomb of oblivion—perhaps to ruin. Give them education, and they will be a fortune to themselves and their country. It is an inheritance worth more than gold, for it buys true honor—they can never spend nor lose it; and through life it ever proves a friend, in death a consolation.

EUROPEAN HARVESTS.

Another brilliant week has further redeemed the present summer from the bad character it commenced with, and, so far as wheat is concerned, it could not have been better, the occasional coolness experienced rendering too hasty a maturity of the grain, and contrary to all expectations, we can announce that we are on the eve of harvest. Samples of ripe grain have been exhibited at market from the neighborhood of London of full average quality, though rather short. Others, however, have appeared thoroughly blighted from Essex, where we hear there is much of foot-rot, occasioned by excessively wet chills on a forward growth; others much blighted have been exhibited from the Fens. The well-drained loams will therefore, as usual, carry the day, and the excessively heavy as well as the light lands are to go short. Hungary has about finished, with a good quality but doubtful yield, as have Italy, the south of France and Spain; but there are yet complaints of backwardness and some rough weather in the north of Europe, while nearly the whole has yet to be gathered before we know what is our general stock of food. Prices as yet have stood remarkably well for the unexpected fineness of the weather; but there has been a decline generally of 1s. in this country, and about the same in France and Belgium. The barley and peas are said to be suffering for want of rain, as well as oats, potatoes and many esculents; but there seem many indications that this is not far off, and our only hope is that it will be smart and transient, lest the main crop should suffer. Of the course of the crops in Europe we do not hear universally favorable reports; and though we would hope for the best, no great, if any, surplus is to be reckoned on.—Mark-Lane "Express."

WHAT FARMERS CANNOT CONCEAL.—A poor farmer cannot conceal the fact that he is a poor farmer. All his surroundings proclaim the verdict against him:—his horses, cattle, waggons, harness, ploughs, fences, fields—even his wife and children bear silent, but unmistakable evidence against him. On the other hand, all these things will testify favorably on behalf of the good farmer.—Every passer by can read the evidence pro or con. This fact alone ought to stimulate every farmer to do his best, for the sake of his own character, as well as interest; for he may rest assured that every passer by will pronounce judgment according to the evidence.

A Scotch professor, in his walks about Aberdeen, met a well-known "habitué" of the town, of weak intellect. "Pray," said the professor, accosting him, "how old can a person live without brains?" "I denna ken," replied Jemmy, scratching his head, "how auld are ye yerself?"

The following notice was pasted on a large box which passed over the Pacific Railroad a few days since: Baggage-smashers are requested to handle this box with care, as it contains nitroglycerine, Greek fire, gun-cotton, and two live gorillas.

A PATERFAMILIAS, who was investigating the cause of a fearful racket in the dormitory, was met with this explanation: "I just pummelled Harry a little, because, you see, the duced torment wouldn't let me say my prayers."

Said Lord John Russel to Mr. Hume, at a public dinner: "What do you consider the object of legislation?" "The greatest good to the greatest number." "What do you consider the greatest number?" continued his lordship. "Number one," was the Commoner's prompt reply.

Answer to Puzzle in Last Month's Number.

The only correct answer returned from the puzzle in last month's number is from M. Hunter, West Gwillimbury. Answer to the Wonderful Prophet.—The Cock.

Correspondence.

To the Editor of the Farmer's Advocate.

ROTATION OF CROPS.

The rotation of crops has not always been practiced. Farms were formerly divided into meadow, plough or tillage land, and pasture; and each section was permanently used for these specific purposes, till the meadows were covered with moss, and the tillage ground was so impoverished as to yield inferior crops. Under this system, meadows were frequently restored by means of top-dressing, and tillage land was restored by what is called a fallow. There is a serious objection to this mode of farming. For during the continuance of it, the use of the land lost, the same as the use of money is lost, if permitted to lie idle without drawing interest. The very idea of a fallow is, the ground is let alone to produce just what springs up spontaneously, or nothing at all; and whatever does thus spring up, is permitted to remain and decay where it grew.

The Flemings are the first known to have resorted to the rotation system for keeping the soil in a proper state. They insisted that where it was practiced, the land did not need rest; and, it was this system which gave their husbandry a preeminence over that of every other country at that period. They relied so much upon it, that in some instances, they were able to obtain two crops in the same year. In Scotland, it has been scrupulously pursued with the very best results. It was also introduced into England, and is become general there; and it is now constantly gaining advocates in this country.

The greatest benefit is to be received from that species of alternation in crops, which is made between culmiferous and leguminous crops. The former includes wheat, oats, barley, rye, Indian corn, tobacco, and most of the grasses. The latter include peas, beans, other pulse, potatoes, turnips, carrots, beets, cabbage, and clover. Accordingly it has by some been adopted, that good husbandry requires that these two classes should follow each other uninterruptedly, unless where grass is made to intervene; the farmer, however, selecting whatever particular ones from each of these classes he may think best.

The basis of this classification of plants, is

as follows: Calmiferous plants are termed robbers or exhausters of the soil. They are particularly so, during the process of maturing their seeds. Hence, if cut green or when in blossom, they are far less exhausting. Leguminous plants, as a class, are far less exhausting; in the first place, because only a few of these mature their seeds—and, in the second place, all of them having broad leaves, draw more moisture from the atmosphere than the narrow leaved plants which compose the culmiferous class. Also the roots of culmiferous plants are generally more fibrous and more divided, spreading themselves near the surface, and draw their nourishment principally from the upper of the soil. Leguminous roots are generally spindle formed, having what is called a tap root, with few radicals, and consequently draw most of their nourishment from the lower stratum of the soil, and through the lower extremities of their roots. An eminent chemist says, that plants exhaust only that portion of the soil which comes in contact with their roots; and spindle root may be able to draw an abundance of nourishment from land, the surface of which has been exhausted by short, or creeping roots. The same writer remarks, that the roots of plants of the same or analagous species, always take a like direction, if situated in a soil which allows them a free development; and thus they pass through, and are supported by, the same layers of earth.

The following fact may be given in confirmation of this theory. It is proverbial that trees of the same species will not flourish in succession in the same place. Hence, if a worn out peach orchard is to be removed, and young trees of the same species are to occupy the same ground, instead of being planted in the holes from which the old ones were taken, they must be arranged in rows intermediate to the old ones. So likewise in regard to all fruit trees, unless a suitable period has been allowed for producing the decomposition of the roots of the removed trees, and thus supplying the earth with fresh manure.

CHARLES L. MANLEY,

St. Catharines.

To the Editor of the Farmer's Advocate.

The boar that I purchased from you last fall, has proved the most profitable animal I ever had on my farm. He is well liked by all that have seen him. He is improving the stock of this township. I have had 130 sows brought to him at \$1 each. I have sold four young pigs I raised from him for \$36, making a total of \$166 in cash. He has vastly improved my stock, and the hog is as good as ever.

JOHN KENNEDY,

Hyde Park.

MR. WELD:—The bushel of wheat I got from you in the spring, yielded a good crop, the Westwell oats were a far better crop than my other oats, growing side by side.

D. HARRISON,

Russel, Ont.

MR. WELD—Sir:—I am fully satisfied with the superiority of the Seed Drill I procured from you. It is complete in all its parts, and does its work better than any other drill I have seen. One great advantage is the sowing of the grass seed before the wheat, as it covers it well and prevents falling in the ridges too thickly with the wheat, giving both the grass seed and the wheat a little chance.

W. BRANTON,

Delaware, Ont.

To the Editor of the Farmer's Advocate.

Dear Sir.—Enclosed is the notes signed according to your request. Please forward the Little Giant immediately.

The Fall Wheat in this part of the country is almost a total failure, being hurt with rust. Some fields on new ground will not be cut; which if well filled would produce 30 bushels to the acre. The 2 bushels of Treadwell and 2 bushels of Amber Midge Proof which I got from you, is about the only wheat about here that is anything like a crop. I think I will have 30 or 35 bushels of the Treadwell, and about 20 of the Amber Midge Proof; the former was sown on sod, plowed once with a top dressing of bleached ashes, and the latter on new ground. The Treadwell had the best chance, and is not only midge proof, but rust proof, or nearly so. I have no trouble to sell it for \$2 per bush. The principle part of the wheat sown about here, was the Soules, and the sooner it is abandoned the better.

Yours &c.,

FRANCES PECK.

In some instances the Treadwell has been a little attacked by both rust and midge.—[Ed.]

To the Editor of the Farmer's Advocate.

THE VETERINARY DEPARTMENT

Ringbone may be defined to be an osseous or bony Tumour upon the pastern bones, forming a ring of osseous matter around these bones. This disease may or may not involve the Pastern Coronet and Fetlock joints.

The class of horses who are mostly predisposed to the formation of Ringbone, are those having short upright pasterns, and who are coarse and fleshy legged. It is an hereditary disease, and is also caused by heavy draught or by violent strain, the weight descending upon the Pastern joints. Nature forms an ossifice or bony deposit around this joint to strengthen in as it were, and the reason why ringbones are oftener seen in the hind, than in the fore legs, is owing to the great amount of weight or stress which the hind pasterns have to support, more particularly in the actions of galloping and backing. In the early stages of this disease, it does not necessarily follow that the animal should be lame, but if the ringbone in its formation creates any great amount of tension of the Periosteum or membrane covering bones, or if the ringbone is in close proximity to a joint and interfering with the action of a particular joint, then lameness will be seen to a greater or lesser extent.

TREATMENT.—When this malady first makes its appearance, or when a true diagnosis is formed, even without any perceptible enlargement over the seat of ringbone, hot and cold fomentations applied alternately, will be found of great benefit; it is also commendable to give a strong dose of purgative medicine. Counter-irritants or blisters must be applied and repeated, if necessary, after the action of the first has subsided. The

operation of Periosteotomy may be performed, which means the severing of a white, fibrous, resisting membrane, surrounding the ringbone, providing the bony tumor has no connection with either joints or ligaments. Destroying the nervous sensation going to the affected parts and foot, by performing the operation of Neurotomy or Nerving, has also been recommended, but I need scarcely say with only too lamentable results. Firing and Setoning have also been recommended, and when judiciously performed, I have invariably had good success in practice from its performance.

Before closing this communication, I would remark that there is a most vile practice resorted to by quacks in the county and back townships, viz., cutting out the feeders of the ringbones. The MODUS OPERANDI is to take a jack-knife and remove that horney excrescence at the back of the fetlock joint, the result of which is only too often seen, viz., the severing of the ligament or sinews, and also penetrating the capsular ligament which surrounds the joint; from thence there will be a free escape of Synovia or joint oil. Irritative fever then sets in, and baffles all treatment, not unfrequently carries the poor sufferer off. This, then, is the result of man's brutality.

JOHN L. POETT,

Veterinary Surgeon and Fellow of the Edinburgh Veterinary Medical Society.

Our Veterinary contributor is prepared to furnish information on any subject belonging to his department. He will also furnish to applicants private instructions as to treatment, &c. &c., together with medicine necessary, for \$2. The medicine will be sent Post paid to any address in the Dominion, and for any disease of animals.

For the Farmer's Advocate.

WOMEN IN ADVERSITY.

Women should be more hushed and confided in as wives, mothers and sisters. They have a quick perception of right and wrong, and without always knowing why, read the present and future, read characters, designs and probabilities, where man sees no letter or sign. What else do we mean by the adage "mother wit," save that woman has a quicker conception and readier invention than man? How often, when man abandons the helm in despair, woman seizes it, and carries the ship home through the storm? Man often flies from home and family to avoid impending ruin; woman seldom if ever forsakes home thus. Woman never evaded mere temporal calamity by suicide or desertion. The proud banker, rather than live to see his poverty gazetted may blow out his brains, and leave his children in suffering and want; loving woman would have counselled him to accept poverty, and live to cherish his family and retrieve his fortune. Woman should be counselled and confided in. It is the beauty and glory of her nature, that it instinctively grasps at, and brings to the truth and right reason. man's greatest faculty takes time to hesitate before it decides, but woman's instinct never hesitates, and it is scarcely ever wrong where it has even chance with reason. Woman feels where man thinks, acts where he deliberates, hopes where he despairs, and triumphs where he falls.

To the Editor of the Farmer's Advocate.

WHEAT TEST.

WILLIAM WELD, ESQUIRE, — Dear Sir:—I herewith send you a statement of the different samples of Seed Wheat you sent to me last fall, containing from one to four ounces each, and the yield from each sample sown at the rate of four ounces per bed, each bed ten feet wide and twenty-two feet long. Sowed in drills on the 18th day of September, 1868, on lot number 21, in the 4th concession of the township of Gosfield, in the County of Essex.

- No. 1. English White, 1 oz. sown, shrunk, yield, 5 oz.
- No. 2. California White, 4 oz. sown, winter killed, yield, 2 lb. 12 oz.
- No. 3. Deihls White, 4 ozs. sown, shrunk yield, 4 lb. 10 oz.
- No. 4. Kentucky Midge Proof, 2 oz. sown, Winter killed, yield, 2 lb.
- No. 5. Sadonica White, 5 oz. sown, Mided yield, 1 lb. 1 oz.
- No. 6. Bouton White, 4 oz. sown, Mided, yield, 4 lb.
- No. 7. Salla Red, 4 oz. sown, shrunk, yield, 1 lb. 3 oz.
- No. 8. Lancaster Red, 4 oz. sown, yield 6 lb. 4oz
- No. 9. Bohemian Red, 4 oz. sown, Mided and shrunk, yield, 1 lb. 4 oz.
- No. 10. Italian Red, 4 oz. sown, yield 5 lb. 13oz.
- No. 11. Weeks' White, 4 oz. sown, yield, 5 lb. 12 oz.
- No. 12. Amber Red, 4 oz. sown, yield 3 lb. 9oz.
- No. 13. Red Chaff Mediterranean, 4 oz. sown, yield, 7 lb.
- No. 14. Berdenska Red, 4 oz. sown, yield, 3 lb. 14 oz.
- No. 15. French Red Chaff, Mediterranean, 4 oz. sown, yield, 10 lb.
- No. 16. White Chaff Mediterranean, 4 oz. sown, yield, 6 lb. 4 oz.
- No. 17. Sakonka Red, 4 oz. sown, yield, 13 oz.
- No. 18. Treadwell White, 4 oz. sown, yield, 12 lb.

JOHN C. FOX.

[We return our thanks to Mr. Fox for the care he has bestowed on the grain and the promptness of his report. We hope other persons to whom we have sent grain at our expense will give their experience with them, that we may be able to draw comparisons. Mr. Fox's report has been more accurately obtained than our own, in regard to weight and measure. We hope some others will report on these same varieties, also that the gentlemen to whom we have sent several kinds of spring grain will send their reports in during their leisure hours. We have different kinds being tried in various parts of the Dominion. We find a very great difference in different localities. We sometimes hear of such fabulous reports that we deem it necessary to enquire into the position and character of the writer, and sometimes have to suppress as they are apt to lead people astray; they may appear startling and make a talk, but it is reliable facts that we wish to procure. We hope more of our practical agricultural men will use their pens. We do not think it would be any disgrace for a president, vice-president or secretary of any agricultural society, or even a Reeve or councilman to attach their name below an article on some agricultural subject. Our columns have always been open for agricultural information. We should not condemn an article from a member of parliament or director, if it contained only agricultural information. Reader! cannot you furnish some information for the "Farmer's Advocate," that might be of advantage to your country.]

QUEEN VICTORIA'S MODEL FARM.

Situated about a mile from Windsor, it is probably the most perfect, as it is the most expensive thing of the kind in the world. Its dairy department is thus described: "We entered a beautiful cottage, and were shown by one of the Queen's favorite servants into a room about 30 feet square, the roof supported by six octagonal columns of white marble, with richly carved capitals. The floors were of white porcelain tiles, the windows stained glass, bordered with May-blossoms, daisies, butter-cups and primroses. The floors were lined with tiles of porcelain of a delicate blue tint, with rich medallions inserted of the Queen, Prince Consort and each of the children. Shields, monograms of the royal family, and brass reliefs of agricultural designs representing the seasons, completed the ornamentation of this exquisite dairy. All around the walls ran a marble table, and through the center two long ones, supported by marble posts resting on basins, through which runs a perpetual stream of spring water. By this means the table slabs are always cold, and the temperature of the dairy is chill, while the white and gilt china milk and butter dishes resting on the tables are never placed in water. We drank the delicious milk, just brought in bright metal buckets, lined with porcelain, the Queen's monogram and crest glittering on the brass plates on the covers. In the room where the butter was made, milk skimmed and strained, we feasted our eyes on the rows of metal porcelain-lined cans of every size, made to lock, and sent to the royal family even as far as Scotland; so they always have good milk and butter. The churn was of metal also, and lined with porcelain, made in two compartments. The outside chamber surrounding the cylinder could have warm or cold water poured in to regulate the 'coming of butter,' without disturbing the cream. The lid was screwed on, and the stationery stand on which the whole was turned made the work easy and rapid."

NEW IMPORTATION OF SEED.

We have received from Mr. Miller, a large quantity of imported wheat from Germany and Scotland. This wheat, coming from similar climates to our own, should be a great acquisition to our country. The qualities of the wheat are just such as we would select for a change. The samples are good. Now is the time to sow them. A little in each section should be obtained, as the increase of a good kind is great, and one may make a good thing by having superior seed to supply his neighbors with. We divide it into quantities, so that all who have a desire to be the foremost in their different sections, can secure it either by express, rail or post. Try a little of it.

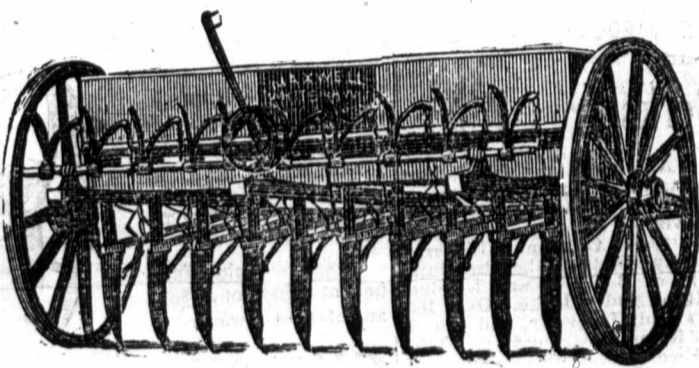
LONDON MARKETS, LONDON, Aug. 26th, 1869

Fall Wheat, per bushel.....	\$ 90	to	98
Spring Wheat do.....	1.00	to	1.05
Barley do.....	50	to	60
Oats do.....	58	to	60
Peas do.....	70	to	75
Corn do.....	85	to	90
Cherries, per quart.....	4	to	5
Currants, red do.....	3	to	4
Currants, black do.....	10	to	12
Hay, per ton.....	8.00	to	10.00
Butter, prime, per lb.....	13	to	14
Eggs, per dozen.....	13	to	14
Potatoes, per bushel.....	40	to	60
Flour, per 100 lbs.....	2.00	to	2.25
Mutton, per lb., by quarter.....	6	to	8
Beef, per pound.....	6	to	7
Cows do.....	25.00	to	35.00
Sheep.....	3.00	to	4.00
Lambs.....	2.00	to	3.00
Wool, per lb.....	35	to	37

THE BEST SEED DRILLS PROCURABLE,
ARE MANUFACTURED BY

Messrs. Maxwell and Whitlaw.

THEIR has taken six 1st Prizes and six Diplomas at the Provincial Exhibition. Their Empire Drill took the first prize at the last Provincial Exhibition, and their Paris Drill took the second. They cannot choke, sow evenly and give entire satisfaction; they are cheap, well made, and warranted to do their work efficiently. Terms of payment are easy. If you want a drill, purchase the best. All orders promptly attended to at the Emporium, and all implements sold at the

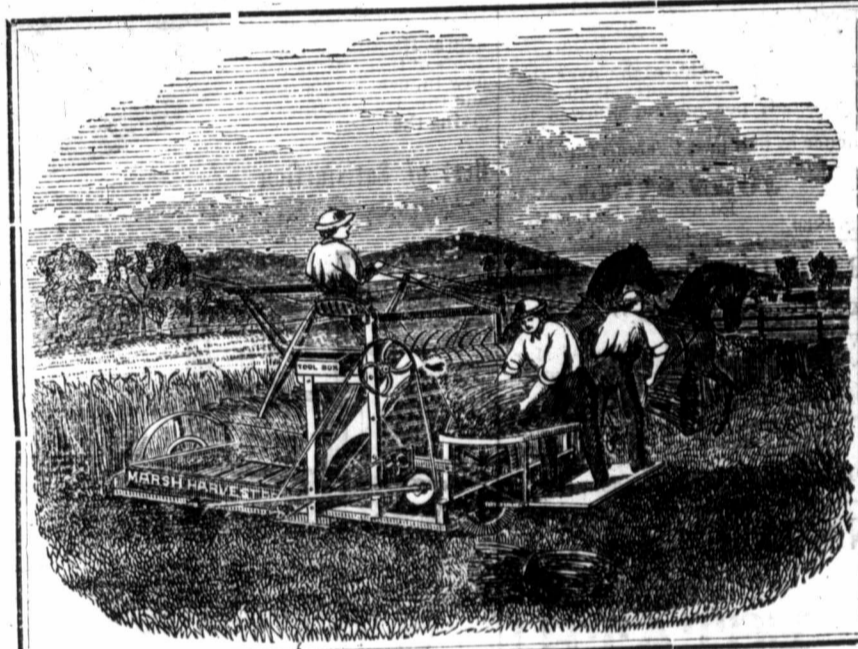


manufacturers prices. The Empire Drill has a Land Measurer and Grass Sowing Attachment. May be seen at the Emporium. Price \$65, with Seed Attachment \$70, and with land Measurer \$75. Orders taken at the Emporium. Address **WM WELD,** London, Ont.

ECONOMICAL, SUCCESSFUL, AND UNRIVALED.
THE CELEBRATED REAPER

The Marsh Harvester

THE MARSH HARVESTER



THE MARSH HARVESTER

Acknowledged to be the best Harvesting Machine in the Dominion.

Leffel's American DOUBLE TURBINE WATER-WHEEL
MADE TO ORDER.

For further particulars send for pamphlet, Address to

PAXTON, TATE, & Co.
Berry St., Port Berry, Ont.

CENTRAL DRUG STORE, No. 113 Dundas St., London. E. PLUMMER & CO., CHEMISTS, etc., dealers in Drugs, Chemicals, Dye Stuffs, Patent Medicines, etc., etc.



E. BELTZ,

HATTER and Furrier, sign of the Big Hat and Black Bear, 85 Dundas Street, opposite entrance to Market, London, Ontario.
Trunks, Valises, Carpet Bags, Furs of all kinds. Hats and caps made to order. Cash paid for Raw Furs.

SCATCHERD AND MEREDITH, BARRISTERS, & Co.
LONDON, ONTARIO.
THOS. SCATCHERD, W. R. MEREDITH. m.c.

J. BEATTIE & Co.,
IS THE CHEAPEST DRY GOODS, MILLINERY AND MANTLE STORE IN THE CITY OF LONDON. m.c.

C. D. HOLMES, BARRISTER, ETC.
DUNDAS STREET, LONDON, ONT. m.c.

SENT FREE! SENT FREE!
M. O'KEEFE, SON & Co.'s CATALOGUE OF SEEDS,
AND GUIDE TO THE
FLOWER AND VEGETABLE GARDEN,
For 1869.

M. O'KEEFE, SON, & Co., Seed-Importers and Growers, Ellwanger and Barry Block, Rochester, New York.

E. A. TAYLOR & Co.
Booksellers and Stationers,
Richmond Street, London, Ont.
SCHOOL BOOKS, MAGAZINES,
Office Stationery, etc., always on hand. m.c.

GREAT SALE OF THOROUGH-BRED STOCK SHORT-HORN CATTLE

COTSWOLD, LEICESTER, and SOUTH DOWN SHEEP

Improved Berkshire Hogs.

I WILL sell by Public Auction at my farm, four miles from Brampton Station, G.T.R., twenty miles west of Toronto—on Wednesday, September 29th—the following pure bred stock, viz.:

15 head of Short-Horn Cattle; 9 Cows and Heifers, and six Young Bulls, mostly sired by the Premium Bulls Baron Solway, Duke of Bourbon, and Loudon Duke, and the cows in calf to Loudon Duke. Over 100 head of pure bred Cotswold, Leicester, and South Down Sheep, consisting of Rams, Shearling Rams, Ram Lambs, Ewes, Shearling Ewe Lambs; the largest and best lot of sheep ever offered for sale in this country. Also about twenty young Berkshire Pigs. This is a rare chance to secure good animals to show at the Local Fairs.

ALL THE ANIMALS ARE YOUNG

In good health and in breeding condition. The whole will be sold without the slightest reserve, at the people's own prices. Catalogues will be distributed at the Provincial Fair at London, and sent to those applying for them. Teams will meet the trains at Brampton on the morning of the Sale, to convey parties to the farm.

TERMS.—All sums under \$40, cash; over that amount six months credit on approved notes, or discount at the rate of eight per cent, per annum allowed for cash.

Sale to commence at half past twelve—Lunch at twelve.

JOHN SNELL,
Edmonton, P.O; Ont.

Edmonton, 26 Aug. 1869.

SHORT-HORN BULL FOR SALE.

"Duke of Magdala."

GOT by Mr. F. W. Stone's "Grand Duke of Mor-ton," 5732, [324.] Dam Mattie, by Earl of Gloucester, 6707, [217.] &c. VIDE CANADA HERD BOOK.

"Duke of Magdala" is 1 year 8 months old, of Dark Red color, very quiet, and has already taken three first prizes at county and township shows. Price reasonable.

Apply to **JOHN B. TAYLOR,** London, Ont.

EXTENSIVE SALE OF REAL ESTATE!

IN AND NEAR LONDON.

WILL be sold by private sale, and immediate possession given, that valuable property known as "ELMHURST," being the homestead of the late Honorable Mr. Justice John Wilson, consisting of a handsome stone house, finished in the most complete and substantial manner, with stone stable and coach house, orchard, greenhouse garden and grounds, in all about 16 acres of excellent land, in the best cultivation, and delightfully situated on the bank of the river, within ten minutes walk of the market or post office, and free from city taxes. Also,

The Homestead Farm, of about 100 acres of excellent land, on the Wharncliffe highway, with good brick farm house, two large barns, sheds, and about seventy acres cleared, and all well fenced, within a mile of the city; a good gravel road and no toll. Also,

180 acres in the township of Delaware; about 60 acres cleared, balance well wooded with beech and maple, seven miles from London, on the gravel road.

Also, part of Lots 3 and 4, 1st con. Lobo, about 100 acres; a good brick house and frame outbuildings on the property; beautifully situated on the River Thames.

Also, north part of Lot 7, 1st Con: Westminster broken front, about 90 acres; with frame farm house and outbuildings.

Also, several houses and lots in the city of London.

Terms liberal. Apply to **PHILIP MACKENZIE,** Solicitor, London, Ont.

or **J. J. HUGHES,** St. Thomas, }
WM. BAYLEY, London, } Executors.

F. S. CLARKE, Richmond St., London, Exchange Broker, Insurance Agent, and Agent of the National Steamship Coy., from New York to Liverpool, Calling at Queenstown. Prepaid Certificates issued to bring out from the above places, or Germany. m-c-y.

NEW PATENT CIDER MILLS H. SELL'S PATENT FOR 1868.

THIS Mill first cuts and then crushes the apples perfectly fine making a saving of more than one-eighth of the cider over any other mill. It never clogs, owing to its novel discharge, and is very substantial. It carried off the

FIRST PRIZE

at the Provincial Fair held at Kingston, 1867, and also awarded a

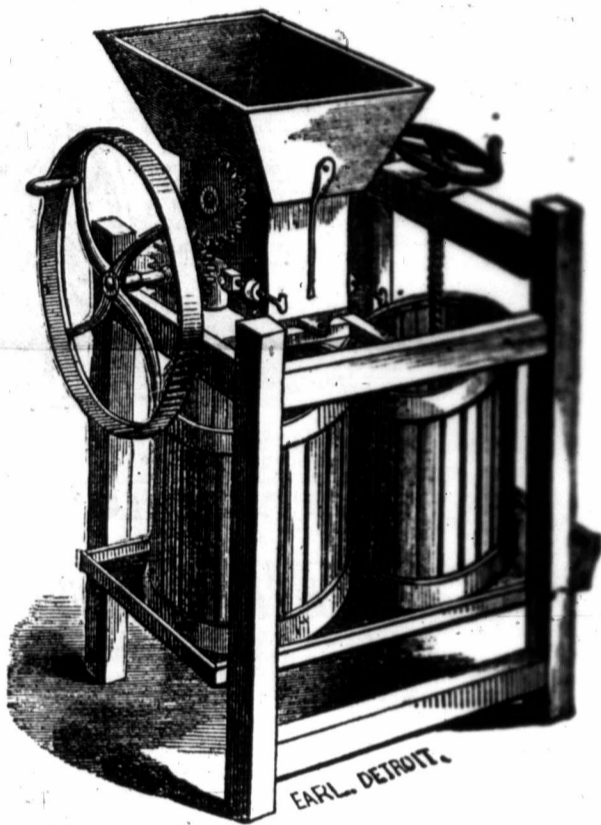
DIPLOMA

the same Fall at the New York State Fair held at Buffalo, and again it has carried off the

FIRST PRIZE

at the Provincial Fair held at Hamilton. Hundreds of these Mills are now in use in Canada and the United States, giving the

Best of Satisfaction



We furnish the Mill and Press complete with new rollers, for \$25, or \$30 for the extra rollers. The price is for the mill, at our factory. Each conveyed by express for

Send or other Power

FARMERS

Send in your order early, making your part of the order, and Full Office Address. All orders will receive

FRIGHT ATTENTION.

Agents Wanted

All over the Dominion. Address

H. SELLS, & Co
Vienna, Ont.

Samples sent and orders taken at the Agricultural Emporium London.

RAILWAY TIME TABLE

		G. W. R.		Sarnia Line		G.T.R.		L. & P.R.	
		WEST		EAST		A.M.		P.M.	
2	55	6	00	6	00	11	25	1	30
6	25	6	00	6	00	11	25	1	30
7	20	8	55	8	55	11	25	1	30
A.M.	P.M.	8	30	8	30	11	25	1	30
12	40	1	40	1	40	11	25	1	30
5	55	4	10	4	10	11	25	1	30
P.M.	1	30							

THE FARMER'S ADVOCATE

IS published on the 1st of each month. Terms, \$1 per annum if paid in advance; 12 1/2 cts. per month if on credit; in clubs of four or more, 10 cts. in advance. To Agricultural Societies, 50 cts. Advertisements 10 cts. per line, outside pages 20 cts., Specials, 30 cts., Editorials gratis. As we now pay the postage on all papers, we allow all kinds of advertisements in our paper.

Address **W. WELD,** London.

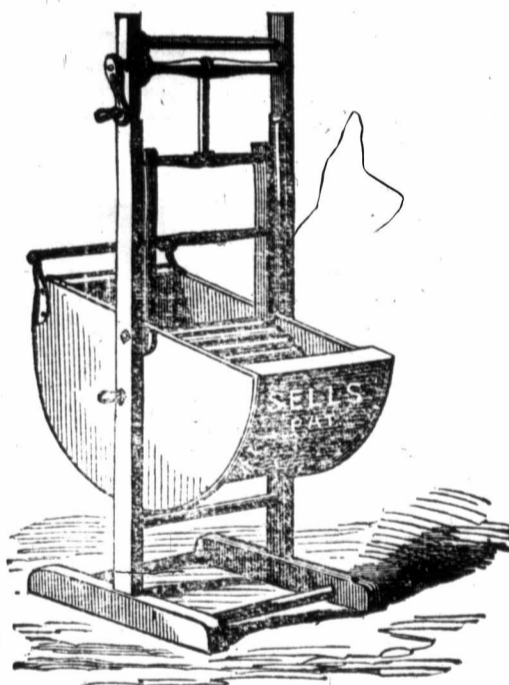
CAHOON'S BROADCAST SEED SOWER.

WILL enable one man to sow more seed in a single day than can be done by the old method in three. This will be seen at a glance, on examining the action of the machine, which can be regulated with the greatest nicety in proportion to the size and weight of the crop intended to be sown. The following is a short table of the distances at which the seeds most commonly used are thrown, with a regularity which could not be surpassed if every single seed were placed by hand.

Wheat and Rye from.....	20 to 25 feet.
Barley.....	25 to 30 "
Hemp.....	25 to 30 "
Oats.....	25 to 30 "
Clover—Millet and Hungarian Grass.....	20 to 25 "
Timothy.....	25 to 30 "

The undersigned have been appointed Sole Agents in Ontario for the sale of the above most valuable Machine, which will be found one of the greatest labor-savers ever invented. They will be happy to show the above in operation, and to furnish prices and full directions for use to dealers and others who may be disposed to purchase.

CHAS. DAWBARN & Co., Seedsmen,
124 King Street East, Toronto Ont.



H. SELLS' DOMINION WASHING MACHINE

Patented Feb. 16th, 1869.

THIS MACHINE NEEDS ONLY TRYING TO BE APPROVED BY ALL.

IT is on an entirely novel plan, having a corrugated revolving pressing roller, and the fabric or clothes being washed are forced under this roller by being placed in a swinging circular box.

It washes thoroughly, without damage to the finest of fabrics, or injury of buttons. It will also speedily wash the heaviest of bed-clothes, and that too with the greatest of ease, requiring no more than half the power that drives other machines.

PRICE TEN DOLLARS.

May be seen at the Agricultural Emporium Wareroom London, Ontario. Vienna, 1869.

CORNISH AND MACDONALD,

BARRISTERS, ATTORNEYS-AT-LAW, Solicitors in Chancery, Conveyancers, &c., London, Ontario. F. EVANS CORNISH, (t-f) ALEXANDER J. B. MACDONALD

CHEAP AND SAFE

Assurance from loss or damage by Fire or Lightning, is afforded by the

AGRICULTURAL Mutual Assurance Association OF CANADA,

Head Office, - - - London, Ont.

A PURELY FARMER'S COMPANY.

Capital, 1st Jan., 1869, over \$230,000

Cash and Cash Items over \$26,000

This Company is the only

FIRE MUTUAL IN CANADA

that has complied with the requirements of the Assurance law of 1863, as will be seen from the following letter received from the Honorable, the Minister of Finance:

FINANCE DEPARTMENT, Ottawa 9th June, 1869.

CROWELL WILSON, Esq., M. P., House of Commons.

DEAR SIR—The Agricultural Mutual Assurance Association of Canada, of which you are President, is at present the only Mutual Fire Insurance Co. which has made the deposits required to enable it transact business throughout the Dominion. The Deposit now amounts, as you are aware, to \$25,000.

I have &c., JOHN ROSE.

Intending insurers will note, 1st. That this Company pays the full amount of

LOSS ON CONTENTS OF BUILDINGS not exceeding the sum insured.

2nd. That it has

30,892 POLICIES IN FORCE,

A number nearly as large as all the other

FARMER'S MUTUALS IN CANADA PUT TOGETHER.

3rd. That nothing more hazardous than

Farm Property

is insured by the company, and that it has no

BRANCH

For the insurance of more

DANGEROUS PROPERTY

Nor has it any connection with

ANY OTHER MUTUAL

Of any description whatever.

4th. That the large amount of cash on hand, enables it to

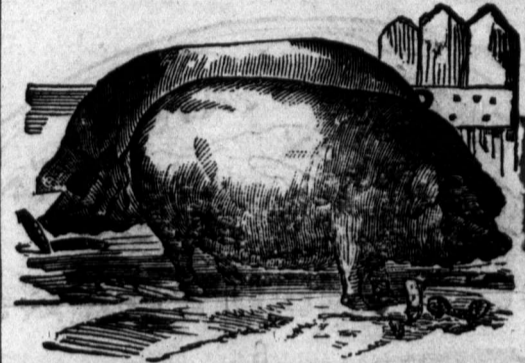
PAY ITS LOSSES

Without any unnecessary delay.

5th. That its rates are as low as those of any well established Company, and lower than those of a great many.

Further particulars may be learned by addressing the Secretary, London, Ont.

PRIME CHESTERWHITE PIGS



WE are making a specialty in breeding the above; also

POULTRY

And persons wishing to improve their stock should send their orders to us.

PRICES OF OUR PIGS.

Boar and Sow two months old, not skinned.....\$25
Sows with pig, seven months to one year old...\$45 to \$75
These prices include boxing and delivery at Express Office. All pigs warranted to arrive safe and of perfect purity.

THOS. B SMITH,
Stony Brook, N. Y.

THE EXCELSIOR CHURN

PATENT makes Butter in a Shorter Time than any other Churn, and quite as good. If properly worked it will come in from Seven to Fifteen Minutes. Being made entirely of Tin, it is easily kept clean.

No. 1. to Churn 10 galls	\$6 00
" 2. " " 8 "	5 00
" 3. " " 6 "	4 00

Any size made to order on receipt of Cash.

PATENT RIGHTS FOR SALE.

P.O. Orders to be made payable to
1 in p W. HURST, Orilla

TO GARDENERS, FLORISTS AND OTHERS.

TWO Inch Flower Pots	\$1.00 per Hundred
3 " " " "	1 50 " "
4 " " " "	2 00 " "
5 " " " "	2 50 " "
6 " " " "	4 00 " "
7 " " " "	5 00 " "
8 " " " "	6 00 " "
9 " " " "	7 00 " "
10 " " " "	9 00 " "
11 " " " "	10 50 " "
12 " " " "	12 00 " "
13 " " " "	13 00 " "
14 " " " "	14 00 " "
15 " " " "	15 00 " "

Saucers from 1 2 1/2 to 25cts. per dozen

CHARLES SIBLEY, LONDON,

Manufacturer of Draining Tiles, Flower Pots, Vases, Chimney Pots and earthenware of all kinds. Orders shipped punctually to all parts. Samples may be seen and orders taken at the Agricultural Emporium Ware-room. Address, W. WELD, London, Ont.

THE BEST SHEEP MARK YET INVENTED.—It is made of flat tinned wire, stamped with name of owner and number. It is cheap; it looks well; it does not wear out. Prepaid by mail to any address on receipt of 3 1/2 cts. each. Liberal terms to agents. Sample sent free. ARCHIBALD YOUNG, Jr. Sarnia Ont.

BURKE'S PHOTOGRAPH GALLERY.

First Door South of McBRIDE'S Store and Tin Shop
Richmond Street, LONDON.

TEALE AND WILKENS MARBLE CUTTERS DUNDAS STREET LONDON, ONT.

WAGON and Sleigh factory, Eldon Street, London, Ont. Their machinery is more perfect and complete than ever, in consequence of which they are able to turn out work, both in quantity, quality and cheapness sufficient to surprise every one not posted up in the improvements of the age. A general improvement of Hubs, Spokes, and Bent Stuff, and any kind of wood work for Wagons, Sleighs, Horse Rakes, &c., always on hand.

DRAIN TILES.

THE Subscriber begs respectfully to inform the public that they can be supplied with various sizes of tiles, at his factory, one mile east of Lambeth, Westminster. G. GERRARD, London.

SLADE'S PATENT HAND LOOM

Neat, Complete, Strong and Cheap.

THEY are superior to the looms now in use, are more easily worked, and throw their own shuttle. A child can use them. Every family that makes home-made cloth will find it to their advantage to use one of these looms. The Price of Loom for plain weaving is \$40; for twilling, \$50. Samples may be seen and orders taken at the Agricultural Emporium Ware-room, London, or address to G. S. ORE, Chatham.

PATENT RIGHTS FOR SALE.
1 in p

CITY HOTEL,

CORNER Dundas and Talbot streets, (Market Square) London Ont. J. & T. MOSSOP, Proprietors. Best Stabling in the Dominion, and attentive Hostlers and the best accommodation.

FIRST PRIZE EMPORIUM SEED WHEAT.

PARTIES desirous of procuring reliable TREDWELL SEED WHEAT, grown from seed which gained Mr. Weld's EMPORIUM PRIZE of TWENTY-FIVE DOLLARS, can be supplied by—
C. A. O'MALLEY,
Wardsville, Ont.

Machine Works, Oshawa, Ontario.

OUR FACILITIES will be very much INCREASED by the addition of new Machinery, and a more thorough ORGANIZATION Through our Connection with the

GLEN & HALL Manufacturing Co. of Rochester. We shall continue to receive all valuable improvements introduced in the United States.

We shall offer this season our well-known Machines with many valuable improvements, and shall, as usual, keep constantly on hand duplicate parts of all our manufactures, thus enabling us to supply the wants of our customers, and save them from delay in case of accidents.

MR. F.W. GLEN

Will continue to give his time to the Management of the Business. We are determined that all that capital, skillful workmen, improved machinery, perfect organization and division of labor can do, with the best material, shall be done to put into the hands of our patrons the best machines made in Canada, at the lowest possible price.

For further particulars, address

F.W. GLEN,
President,
OSHAWA, ONT.

MEMBER & FACETS
has been purchased including
SHOPS,
Machinery, Patterns &c.
by the
JOSEPH HALL
MANUFACTURING Co'y.
who will continue
THE BUSINESS,
in all its
BRANCHES
with increased
ENERGY
AND
VIGOR.