

VOL. VII. { WILLIAM WELD, Editor and Proprietor } LONDON, ONT., JUNE, 1872. { \$1 Per Annum, Postage Prepaid. } NO. 6. { Office—Dundas St., Opp City Hotel. }

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A Trip to Ottawa.

Feeling that a change of air and a little relaxation would be beneficial to ourselves, and also that some useful agricultural information might be obtained, we took the G. T. cars bound east, on Friday, and arrived in Ottawa at 10.30, Saturday. Business being our principal object, we lost no time in making our way to the Parliamentary Buildings, a slight description of which will perhaps not be unwelcome to our readers.

The original estimate for building the Parliament Buildings was about \$80,000, but through many unforeseen circumstances, among which we may mention the immense amount of excavation which had to be made in the solid rock, which caused a very great increase in the expense, the actual cost of building was little short of \$1,000,000. The architectural style adopted was Gothic; they are built with a light-colored Potsdam sandstone, obtained from a quarry at Nepean. The columns and arches of both chambers are of Arraprior and Portage du Port marble; the external ornamental work of Ohio sandstone. The main building covers an area of 82,866 feet, is 472 feet in length, and 572 feet in depth from front of main tower to rear of balcony. The body of the building is 40 feet high.

The Senate and Commons chambers are situated respectively on the right and left hand of main entrance. Both are large and airy, have stained glass windows, and are handsomely furnished. A gallery is attached to each capable of seating 1000 persons.

We must not be too minute in our description, or this article will appear too long. Great attention has been paid to the heating and the ventilation, and by giving you a little idea of these fittings alone you may be enabled to form an opinion as to the extent, &c. There are 6 steam engines employed, not constantly, but when occasion requires, two of which are 30 horse power, two of 15 horse power and two smaller ones; they are used for supplying water and air. Water is supplied from the Ottawa river, from whence it is forced by the steam engine to any portion of the building. Water pipes and hose are to be found available in all parts of the buildings. The heating arrangements are such that any temperature may be had in any room, to suit the occupants. It is quite astonishing to a backwoods farmer to walk through one of the spacious corridors and see the numerous well-fitted apartments. The buildings are, without doubt, grand, substantial, imposing, and necessary. Should John A. at any time be overthrown, or retire from public service, he will leave behind him a monument in these buildings that must be admired by every Canadian

and foreigner. It is our impression that they are worth all they cost, taking into account their grandeur and magnificence; that they will impress a greater idea of our importance, power and wealth on all who may see them, and also tend to unite our country in closer bonds; and that the money has not been altogether thrown away which was expended on them. The sum really looks enormous, and enough to sink us, yet the very expenditure of it we think will tend more to the binding of the country together than any expenditure which has yet been made. It is unity only that can make an independent nation of us!

The situation of the buildings we think is as good as can be found. We in the west would like to centre business around us, but for the convenience of the other provinces and for safety from invasion, we think it much better than at any point along our Western frontier. It is in the main chain of communication that must unite the eastern and western extremes of our Dominion, and be our main route for the commerce of the world.

The view from the high rock on which the buildings are situated is pleasing and grand, commanding a fine sight of the Ottawa river, being at an elevation of between 100 and 200 feet above the river; the bluff is steep, but covered with cedars and other wood; a beautiful walk called the "Lovers' Walk," has been made on three sides of the bluff, neat rustic seats are placed at different points along it; a neat fountain of flowing water is also placed in the rock at one part of the walk. This walk is the admiration of all that travel it, as it is romantic and commands beautiful scenery.

The Chaudiere Rapids and the immense lumber yards, of which we have little conception in our part of the country, are seen from this walk, and from the summit of the hill. The buildings, river and scenery have to be seen before they can be properly admired.

To citizens and farmers who can afford a pleasure trip we would say: Go and see the capital of our country. Why should we always neglect our own resorts to go to others more expensive and less exhilarating?

POSTAGE.

We have felt sorely the heavy burden that has been placed on us by the alteration of the Postage Act, still we continued hoping that our legislators might in some way and rather than check the circulation of Canadian agricultural papers. As we have often written on the subject without avail, we concluded to go to headquarters and lay our statements direct before the proper authorities. Crowell Wilson, M.P., for East Middlesex, kindly introduced us to Sir J. A. Macdonald, Alex. Campbell, the Postmaster-Gen., and to Mr. Pope, the

Minister of Agriculture. To each of these gentlemen we explained the position of the agricultural press, they appeared to coincide in a great measure with our views. Two of them thought that agricultural papers might pass free. We replied that such was not our desire; we only asked that agricultural papers might be sent to individuals at as cheap a rate as political papers, and that the country postmasters might receive the payment. As the country postmasters receive nothing for delivery of prepaid matter, consequently they may not be as well attended to as they might otherwise be, thus causing loss to publishers and dissatisfaction to subscribers.

We also referred to sending seeds by mail at the same rates as they are sent in the States. They stated that it was too late to alter the Act this Session, but we anticipate a change for the better at the next Session, as they all appear inclined to aid agriculture if proper ways are only shown them in which they can do so.

SWALLOWS.

While in Ottawa we were surprised at the countless thousands of swallows that assembled in the evening about the Parliamentary Buildings. They assembled about an hour before sundown, and continued their flight in various circulating forms, occasionally perching off in either direction. They appeared to be holding a mass meeting, or a grand celebration of the Dominion Day to suit their own time. Perhaps they had not read the notices that we intend keeping it on the 1st of July. No doubt some of them are trying to obtain favors, and others, perhaps, want a seat in the House, with some of the nice rich pickings lying around. Their principal attraction seemed to be one of the tall spires. Numbers of the Members of Parliament watched them with wonder and delight. Their evolutions and twittering pleased us better than a set of mountebanks and a band of music. We had never seen quarter as many assembled together before. We hope a plea of protection will be put in for all the feathered tribe. They nearly all destroy insects that injure the crops, and the more birds we have the better crops of grain, fruits and roots we shall be enabled to produce.

In pasting wall paper, especially if successive layers be put on, there often arises a disagreeable effluvia, which is particularly noticeable in damp weather. The cause is the decomposition of the paste. In close rooms this is very unhealthy and often the cause of disease. If, when making paste, a small quantity of carbolic acid be added it will keep fresh and free from offensive smells. A few drops added to mastic or ink will prevent mould.

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—A New Hampshire turkey was accidentally buried five feet in straw, last January, came out alive thirty-one days afterward. He ate snow and a little food and recovered.

FORT GARRY.—A party of 500 emigrants are on the road.

The Provincial Exhibition.

This useful and beneficial institution was undoubtedly established for the advancement of agriculture. The benefits that have accrued from it have been incalculable; the perambulatory system has been beneficial. It has awakened an interest of rivalry and progress, and has undoubtedly added greatly to the revenue of the Dominion, in an indirect manner repaying a hundred fold the amount of its cost. There is nothing that men contrive but faults can be found with; errors will occur in every undertaking. Errors have been made in connection with this institution, and no doubt more will be pointed out and steps taken to remedy them.

The object of the Exhibition is to do the greatest amount of good to the country; some narrow, sordid minds may only look on the balance sheet to judge of its success, and would desire to see it with a large cash balance to its credit annually. This should by no means be of importance; in fact, it should not be carried on for the purpose of amassing wealth, but to expend it and merely pay its own expenses.

The present Board have evinced a desire to advance beyond their predecessors in doing good with the means at their disposal. They added to their expenditures by giving the great trial of implements in Paris last year. This was done without any charge for tickets, being free to all. The funds of the Association are generally diminished when the Exhibition takes place at Kingston, so they have wisely refrained from expenditures this year for a trial of implements in the harvest field.

HOW TO INCREASE ITS USEFULNESS.

For several years past attempts have been made to have the Exhibition held in Ottawa, but they have been met with the most strenuous opposition from the west. The western farmers say the distance is too far, the expenses will be too great, and the American purchasers will not attend; the Canadians are not as brisk purchasers as the Americans or Western men. It will not pay them, they say, to go there. The Western manufacturers also make these complaints.

OTTAWA'S CLAIM.

The representatives of the East say they have an extensive country that contributes largely to the Association's funds, and they desire a fair share of the benefits accruing from these funds; it would be a greater stimulant for the advancement of agriculture in that section than anything they have ever had, and unless they have it they will endeavor to separate themselves from the West and have their own Exhibitions. They will guarantee that it shall be no loss to the Association if they have the Exhibition at Ottawa. They are justly entitled to have it, and will have every accommodation for man and beast. The question will most probably arise again next autumn.

Would it not be fair and honorable of us to grant them their request, and would it not bind the East and West stronger together and awaken a spirit of progress? Would it not cause them to establish local Exhibitions, as Toronto, Hamilton, London and Guelph now have? We could have our Exhibitions just as well. It is to the Provincial Exhibition that each of these large local Exhibitions owe their origin. They have copied from it and adopted its rules and management, and, as the object is to do good to the Province, our opinion is that by taking the Provincial Exhibition to Ottawa in its turn, more good will be done than by keeping it in the Western section. Further, we can see no reason why it should be confined to four localities, as it is well known that the majority of farmers will not go beyond 30 miles from their homes to attend. The interests of the farmers should be consulted quite as much as the interests of the manufacturers or stock breeders. There need be no fear but that the exhibitors will be wherever the Exhibition is held, to carry off the prizes.

They have good, well-enclosed grounds at Ottawa, and the stock can be delivered at the grounds from the decks of the steamboats. Two railways are now running to Ottawa, one from Port Hope and the other from Prescott.

We well know the expenses of the exhibitors will be greater, and the time occupied in reaching Ottawa will not improve the stock. The distance from the grounds to the city and railway stations is farther than at other places, still it is our opinion that visitors will find more accommodation in Ottawa than was to be found in Kingston. It may not be next year that the Exhibition will be held there. It is our opinion that an additional grant of money

might be obtained, and the prizes greatly increased. The Province of Quebec would unite with Ontario, and a finer exhibition would be held in Ottawa than has ever been seen in Canada, that greater benefits would accrue to the Dominion from such a course.

We maintain that Ottawa is justly entitled to the Exhibition, and we should aid its going there, or, rather, forego our selfishness in preventing it from going. Thousands of farmers will see it who would never have any such opportunity if we retained it here. Ask yourselves: has not the Exhibition benefited you? Then why should we withhold it from those who have paid for its maintenance, and have received comparatively no benefit from it?

We hope those of our readers who feel an interest in the Exhibition will express their views on the subject, and we will find space for them in this paper, if they are of a reasonable length, whether favorable to the Exhibition being held at Ottawa or not. Farmers, express your views; we cannot be always right!

The time may arrive when Newmarket, Collingwood, Guelph, Stratford, Clinton and other places will be prepared to guarantee sufficient accommodation for man and beast, and guarantee that no loss shall be sustained by the Association, as Ottawa is prepared to guarantee. They may put in a demand and probably have the Exhibition in their localities, and we doubt not that these places will be able to have as good an Exhibition as the other cities have.

Agricultural Interest and the Post-Office.

Impressing our claims from time to time that the tariff of charges by the Post Office Department for the transmission of small parcels of agricultural seeds, should have been lowered, we have been met by the plea that the post office, instead of being a source of revenue to the government, does not meet the expenses connected with it. It is true that its working does not cover its expenses. Its expenditure for the year was \$1,271,006; its receipts \$1,077,767, thus leaving a deficit of \$193,238. We would observe that to the franking privilege this deficit is largely owing. In reply to this plea, we would say that no government ought to make the post office a source of revenue. A government, if actuated by a desire to promote the intellectual and moral interests of the people, should look upon the post office as an instrument of accomplishing good far above the accumulation of dollars and cents.

Besides, it may be a means of largely increasing the wealth of the country, thus adding to the value of the exchequer, while, meantime, not exhibiting a profit in its Dr. and Cr. account. It is possible to grow in wealth by a liberal and judicious expenditure. Our statesmen might learn this lesson from men of business, who have long acted on it. We remember an old saying,—"To waste money of little value, betimes, is the greatest gain." Our statesmen are too apt to be unmindful of this policy. In the several departments of government they do not extend their view beyond that one immediately under consideration.

We do not take into account that other interests—agriculture, manufactures, commerce—may bring them a return, repaying, manifold, any deficit that might arise from a more liberal management of that department.

We will not cease our demand for more liberal measures in the post office department for the interests of agriculture. We ask, not as a matter of favour, but of justice, of regard for the public good, that our small packages of agricultural seeds, for testing and dissemination, may be carried by post at a reduced rate of at least one half of the present rate; and also that agricultural papers published in the Dominion should have at least equal privileges with any political newspapers. Our success in these matters may not be immediate, but it will be certain.

The leading factories and shops, as well as the builders and carpenters in Guelph, have commenced to pay their employees by the hour. The arrangement is reported to give satisfaction both to the employer and employe, and the best understanding exists.

Circulation of Agricultural Publications.

We have before us a table showing the number of newspapers and periodicals published in the United States, and their aggregate and average circulations. The number of agricultural periodicals is 93, having an average circulation of 8,072. This demonstrates that the U. S. farmers are fully sensible of the importance of having their minds stored with knowledge of that science to which they have devoted themselves. A farmer who does not study agriculture as a science, and carefully and diligently put that science in practice, can not hope for success in those days of experiment and improvement. It certainly speaks well for the shrewd common sense of our neighbours to give such encouragement to a class of papers, the principal attraction of which is the information they convey. These 770,755 subscribers to agricultural journals must so improve the agriculture of the country, not merely by their labours, but also by the example they set to their respective neighbourhoods, that every product of the country must have a wonderful increase.

Agricultural Committee.

We were very much pleased on our late visit to Ottawa, not only by the courteous kindness of many of the leading members to us, as representing the great agricultural interest, but still more by their manly desire to legislate justly for agriculture. They were most anxious to know the measures most beneficial to farmers, and for this purpose an agricultural committee was formed. We have now, on the eve of going to press, received a copy of a series of questions adopted by this committee, and ordered to be sent to leading agriculturists, millers, &c. We give abridged such of those queries as are of most importance to farmers:—

Not having reciprocity with the United States in the exchange of grain, flour, and farm stuff generally, do you think it for the interest of the Dominion that we should continue to admit American produce free, when our exports have to pay a toll of 20 per cent?

What duties, if any, would you impose on flour and on the various grains respectively, or what general guiding rule as to the imposition of such duties would you recommend?

Has the admission of Indian Corn any effect on the prices of coarse grain in your section of the country, and if so, what effect?

Do you advise legislation with a view to establishing and promoting in Canada the cultivation of the sugar beet, and the manufacture of sugar therefrom; also the cultivation of tobacco and flax, and what tariff would best conduce to the enterprise?

We have barely time to refer to these questions very briefly. The agricultural interest receives no protection, and other interests are protected; we, therefore, as a matter of justice, claim that farmers be no longer denied a sufficient protection.

The Government of the United States refuses to allow Canadian produce to be imported to that country unless on the payment of a very high duty. We claim that the Canadian Legislature impose an equal duty on American produce imported into Canada.

The Canadian farmers are beharred from the markets of the United States, while the American farmers can and do pour in their grain and other products into Canada, thus in a measure depriving us of the advantages of our markets. We can supply the Lower Provinces with flour, &c., so let us in fair play supply them, without American interference. If we are not to have reciprocity, let us then in simple justice have such protection as is needed to develop the resources of our country.

We have already spoken of the encouragement we believe the Government should give to promote the manufacture of beet-root sugar. Let them remunerate

him, who at a great expenditure of money and labor, has succeeded in the manufacture. Let those who in like manner are benefactors to the country, not have to complain that they have spent and labored for an ungrateful country.

Parliamentary Affairs.

In the Dominion Parliament great talent, power, and ability have been centered on the debate on the Treaty, and most ably has it been discussed by both parties. We are well aware that many of our readers would like us to treat on this subject, but in our professed position of politics we dare not express one word of approbation or dissension. This is not the sphere in which we would interfere.— If you desire to know the real position in which we stand it will be essentially necessary to peruse a Conservative and Reform paper.

A correct opinion cannot be formed by having only one side of a question. All other papers we have seen in Canada are political or have their political leanings, and will report to suit their ends and purposes, or the purposes of their main supporter or supporters, and if you attach credence to a class of papers published for one side alone and do not heed closely the remarks of the opposing party, you are sure to be a misguided party fool, and unfit to give a vote at the elections. Your party may be right or it may be wrong; by reading only one side of the question, as we are aware many of our readers do, you are sure to have your minds biased to such party as the paper you read supports.

You must take two papers to be enabled to form a correct opinion. Remember it is political power that rules, still we as agriculturists must assert our power, demand our rights and take the management of agricultural affairs, or they will be subservient to party politics. We do not mean to imply that either editors or publishers are untruthful in their reports, but facts may be omitted or commented on to suit the party. You must have this in view when reading political papers, to be correctly informed.

OUR PROVINCIAL PARLIAMENT

will meet ere long, and we anticipate a debate of importance will take place on which it may be the duty of editors of agricultural papers to express their views. The question of the situation of the Canadian Agricultural, Educational and Experimental Farm will be brought up, and its object and the intended modes of management may be discussed. The present Government have a weight thrown on their hands that they as yet appear undecided how to deal with.

Most probably the results of the last Experimental Farm may be brought up, because the attempt has previously been put into operation; but the results of the former one do not show equivalent advantages in comparison to the expenditures. It is probable that the question may arise whether such an establishment would tend to check private enterprise, and if more benefit would not accrue to the country by encouraging private enterprises, agricultural clubs, and the spread of agricultural information; would the Government by adopting these plans interfere in any way with existing establishments; would the institution be used as a hot-bed or hospital for partisans, and would it ever be worth its cost?

We hope some of our readers will express their opinions; now is the time to speak before anything is done; write your opinions.

—The necessity of more light-houses at the east end of Anticosti is unfortunately exemplified in the number of recent wrecks there. The north-east end seems to be particularly dangerous, as appears by the wrecking of four vessels lately.

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New Inventions.

We have received from Mr. Shirley Going, of Wolf Island, a common wooden water pail, the improvement of which consists in the manner in which the handle or bale is attached. In the pails now in use the eyes are apt to be bent or broken, and often the pails are to be found without handles. Mr. Going's invention consists in an attachment to the side of the pail, thus preventing any projection on the upper edge. The pail can be turned over and used as a seat without injury.—The attention of manufacturers will be drawn to this improvement.

LAMB & WARREN'S SUBSOILER.

During the past month we had an opportunity of seeing Messrs. Lamb & Warren's Subsoiler at work. It was exhibited a short distance from this city, and pulverized the land completely five inches below the bottom of the furrow. All that saw it were well satisfied. The principle on which it operates is a good one, and it was much easier drawn than we anticipated, one team being able to plough a furrow and subsoil at the same time. The land operated on was firmly packed, sandy and loamy subsoil; of course it would require more power if worked on hard clay, and we think the machine would also have to be made heavier and stronger if worked on such soil. The proprietor informed us that he is getting up just such a one as we described.

We feel confident that much good will be done by the introduction and use of this implement. We presume it will be on exhibition and put in operation at the fall shows throughout the country. If an opportunity occurs we would advise you to go and see it work, and you cannot then fail to see its utility and the efficient manner in which it does its work.

The sub-soiling is done by an attachment to the plough in the form of two long cultivator teeth fastened to the beam close to the handles. They can be easily raised or lowered to suit requirements. A small wheel runs on the furrow between the landside and the mould-board. This wheel, it is claimed, causes the plough to run with 200 lbs. lighter draft than it would otherwise do. The wheel is attached to an iron bar, and the bar to the beam.

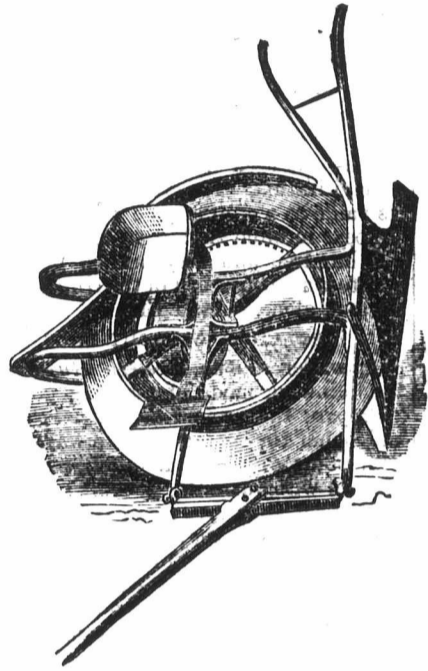
Subsoiling is a work that has not yet been much practiced in Canada, but must be one of the labors of successful farming, more particularly in the stubborn clayey soils.

NEW AND IMPROVED IMPLEMENTS.

It is really astonishing to see the complete revolution that has taken place by the application of machinery during the past 50 years. If we look at the work that is now done by steam power, we are almost led to wonder however the labor was performed before; the fact is, it was never performed. It must be a source of wonderment to all farmers that remember the old mode of cutting, harvesting and cleaning grain, to compare the dream of the past with the facts of the present age. The above illustration represents another most valuable invention; open ditches are needed and roads must be made. To have a machine worked by four horses, and three, which do the work of a hundred, as this machine is said to be capable of performing, is another wonder.

The certificates below place its powers beyond doubt. Mr. Carter's Tilt Ditcher has done much good, but it is destined to increase the productiveness of our soil to an incalculable extent. They are gradually becoming spread over the country.—These open ditchers will be in as great a demand; then there will be Lamb and Warren's Subsoiler to the rescue. With the use of these three machines, many millions of acres of hard, tenacious soils—even swamps, bogs and marches—will be made to become the most valuable. Our common farming lands will, by their use, prevent the great loss from excess of moisture or excess of drouth. These implements should be procured by farmers

uniting and forming clubs, as all require them and comparatively few can afford them. County Councils should encourage the introduction of the first machine; the first one in a section teaches the whole section; but there are hard, knotty, stubborn heads that will hammer, pound, and grumble about the cost. The stubborn animals almost make us vexed; they cannot be made to see the immense profits that must result from thorough drainage.



CARTER'S DITCHER.

On Tuesday we had the pleasure of witnessing the action of Carter's Open Ditcher, Road Grader and Sub-soiler, which was worked on Sydenham-st., Aylmer. The road needed making up, and early in the morning the machine, drawn by four horses, was started to work, and soon any person who witnessed its action, could see that the invention would prove to be a great boon to all who needed any kind of work for which it is suitable.

The machine is of simple construction. The main fixture is that of a plow, driven and used in the ordinary manner. Attached to this is a large wheel, which lies on its side and revolving as the plow passes along cutting a furrow, takes the earth from plow and carrying it round the flange of the wheel, drops it in the middle of the road a distance of 7 feet from where it originally lay. Thus the machine on Tuesday cut a ditch on each side of the road to any required depth, and threw the earth into the middle, not in large quantities, but equally distributed across and along the road. In this operation the two machines, which are usually employed on such work, was combined in one, and the work done in the same time as any ordinary plow would have taken to cut the ditch. The whole machine worked admirably well, and gave general satisfaction. The inventor, Mr. Carter, was present, as well as a large number of farmers and gentlemen of the surrounding district.

On one half the road the machine cut through heavy soil, and it worked at the same rate as it did on the part most used, and which was gravel. When the machine, after four hours' work, was removed the road, a width of 12 ft., nearly half a mile long, had been completely graded up with two ditches cut, and the foundation of the road left intact. By this machine work can be accomplished which would take fully a 100 men to get through in the same time. This machine will not only be of such great advantage for road work, but can be turned to extra benefit on farms, etc., for making open ditches, sub-soiling, &c. The earth, as it passes through the machine, is completely pulverized, and dropped so steadily and gradually that it goes through its work far more completely than a spade. This, we know, will be highly beneficial for farmers. It will effectually grade from three quarters to one mile of road per day, and the same amount at least of open ditch.

The machine, we should judge, weighs between 500 and 600 pounds, and the price will be in the neighborhood of \$150—a low price, we should think, when taking the capabilities of the machine into account.

Indeed, from the success which has attended Carter & Stewart's Ditcher, it can be seen that this machine will, as it becomes known, prove to be in general demand, and give universal satisfaction.

Farmers' Pic-Nic.

In our advertising columns will be found a notice of the Middlesex farmers' picnic. The Queen's Birthday generally finds farmers very busy in finishing their planting and seeding, and Dominion Day is in the haying season. In this section both days are generally devoted to horse racing as the principal amusement, and farmers are often unable to spare time for either of them.

It has been thought advisable to select a time of greater leisure for the farmers, and, accordingly, the farmers' picnic has been established, the object of which is to give them a better opportunity for intercourse, exchange of ideas and opinions for the old, and for amusement for the old and young. The locality—Port Stanley, Elgin Co.—is a good one, and many of the farmers of that county generally attend.—Swings, run-a-rounds, a dining shed and other conveniences, such as hot water for tea. A steamboat is generally in attendance to give visitors an opportunity of a sail on the lake, the sight of which will please all that live in the interior of the country.

The farmers' pic-nics that have been held at Port Stanley have given pleasure and satisfaction to those who attended; to many they may appear tame and quiet affairs, but as yet we have not heard one complaint. All appeared to enjoy themselves and returned home greatly invigorated, and, we believe, in some measure improved.

There are generally some short addresses, amusements of various kinds, athletic sports and dancing. The young should have recreation and change; it invigorates the old, and the interchange of thoughts and ideas is often profitable.—We hope yet to hear of a day being set apart in each county for a farmers' picnic.

We would say: Go, and take the young folks.

Danger.

THE SMALL POX.

While at Ottawa we went to see a correspondent living about 4 miles from the city, and when we were within a mile of his residence, we stepped to the door of a house close by the road to enquire the way. A girl came to the door with her arms and face spotted all over, and by the stove sat a young lad with the small pox out on his face as red as the fire. Although we have been vaccinated three times, we did not stop to ask any more questions at that establishment.

QUERY.—Would it not be well to have a notice placed on all houses infested by the small pox, and should not our counties have hospitals for the patients? It is our opinion that a united expenditure for that purpose would be a great saving to the country.

Root Growing.

At a meeting of the Hamilton township Farmers' Club, held last month at Cobourg, the subject of root growing was freely discussed. We abridge a report of their observations:—

The land intended for root crops should be wheat or oat stubble, ploughed deep in the fall, ploughed again in the spring, and the land made as fine as possible by harrowing, cultivating, and rolling; then plough again immediately before sowing. Then drill thirty inches wide, and draw manure, about thirty cart loads to the acre, putting the manure in heaps in every third drill, and spreading it evenly in the bottom of the drills. This leaves the manure immediately under the roots of the turnip. Run the drill plough in every other drill so as to half cover them; then take about 300 lbs. of salt and 200 lbs. of plaster to the acre, mixed, and put it on the top of the manure by hand. Then run the drill plough so as to cover all up. Sow turnips from 14th to 20th of June. In sowing, take a seed plough and fasten it behind a light roller, sowing one drill up and another down, moving the drill from side to side at each end, so as also to roll the drill you are sowing and the one you have sown, sowing

about three lbs. of seed to the acre. Turnips should be thinned as soon as possible, so as to keep the weeds down. A one-horse cultivator should be run between the drills before thinning.

In the cultivation of Mangold Wurtzels I would not advise any person to try to grow them on very light land, unless they have an unlimited quantity of the best manure. What has been said about the cultivation of turnips will apply very much to Mangolds also, except that you are surer of a crop if they are sown by hand in small holes $\frac{1}{2}$ of an inch deep and about one foot apart, and then covered in lightly. Mangolds should be sown about the 14th of May.

Land intended for carrots should be treated much in the same way as for turnips, except that it should be manured in the fall. A good plan to add to the length of the carrot is to drill the ground, then subsoil in the bottom of every drill; then split the drills so as to cover up the part subsoiled, thus having the carrots sown directly over where subsoiled. This will allow them to go deeper into the ground.

More labor and care is required in the cultivation of root crops than in the cultivation of any of our other crops, but when we see the improved state of our land after them, the increased amount of feed for our stock, and the more valuable manure in consequence of feeding roots, we must admit that we shall be amply repaid for all our care and labor, nor can we see how any man can be a successful farmer unless he grows a large root crop.

Others did not approve of putting the manure in drills for turnips. They thought that if the manure was put on the land and well ploughed in and mixed with the soil, it would do better, not drying up so much, and the young turnips standing the drought better.—Putting the manure in drills under the seed answered well in the old country, where it was the system practised by good farmers, but here the drought is more severe, and green sod, manured and ploughed in the fall, and then wrought to a fine tilth in the spring, does well for turnips. It leaves the ground rich and moist, and it retains the moisture. Some make the drills for turnips 28 inches apart, for carrots 18 inches. Some put in less seed than 3 lbs., but if the seed all grows and escapes the midge, much less seed will do, but it is safer to sow much than to sow sparingly.

When planting Mangold Wurtzels it is well to soak the seed twelve hours before planting, as it will make them come up quicker and better. Mangolds ought to be taken up a little earlier in the fall than turnips, as they make their growth earlier and are easier hurt by frost. They should be kept in a dark place. They keep very well.

Miscellaneous.

A block of land containing about 5,000 acres, near Salmon River in Victoria county, has been laid out and set apart by the government for the emigrants expected from Sweden. The situation is convenient to the River St. John, as well as to Grand Falls. The soil is excellent, and when this tract of land is intersected by the Kiewee Du Loup Railway the settlers will have ready access to the best of markets.

The Hon. Surveyor-General and the Hon. Geo. White have been at Grand Falls on business connected with this matter, and have advertised for tenders for the construction of two log houses, 25 x 60 feet, for the accommodation of the expected emigrants. The buildings are to be completed in the month of June, about which time the Swedes are expected, the number for whom accommodation is provided for being about two hundred. The new comers will be landed at the mouth of Salmon river, whence it will be but a short distance to their temporary shelter.

In Montreal they are projecting the making of a tunnel beneath the St. Lawrence, from the city to St. Helen's Island, from which, by a short bridge, communication can be had with the southern bank of the river. They propose that the tunnel be 32 feet wide, with double tracks, for rail cars and a carriage way. The *Witness* says that the present time seems specially suitable for the undertaking, seeing that the Northern Colonization Road, which is to be a link of the Northern Pacific will absolutely require a free communication with the United States, and the Lower Provinces.

Commendatory Remarks.

We flatter ourselves that no agricultural journal that now exists or has existed in this Dominion is in receipt of so many highly commendatory remarks as are received at this office. Had we kept a record of them they would have filled several sheets of the size of this paper. We have occasionally given some from the ladies, and we will now give a couple from the plain workers of the soil, as their voices should be heard as well as those of political parties; in fact, we appreciate them more, as we know it is from this class that the money must come which pays for all the talent and ability that is devoted to political influences. It is our belief that the honest opinions of the tillers of the soil will be read with as much interest and profit as the opinions of any other class.

SIR,—I think very much of your paper, and consider it the best farmers' paper published. I also take *Moore's Rural New Yorker*, and an occasional copy of the *Canada Farmer*. JAS. B. DOWLING, Easton Corners, Greenville, May 10, '72.

SIR,—I am well pleased with your paper, and can find none other whose merits demand greater applause from the farmers of the Dominion. It abounds with information that every farmer ought to seek after. THOS. WILLISTON, Bay du Vin, N. B., May 1st, 1872.

Seeds.

We hope those gentlemen who will be prepared to supply us with seeds will examine their seeds and, as far as possible, extricate every foreign variety that should not appear with a different kind of grain.

Those having really good, clean fields of the Scott Wheat would oblige us by letting us know about them, as we would prefer seeing the grain in the fields than to see it exhibited in the bags. If Mr. Arnold's or Mr. Forster's Hybrid wheats are superior to others in any sections, we would examine them on receiving information to that effect. We should also like to hear of the best fields of spring wheat, Excelsior Peas, Providence Peas, and the best Oats.

Loan Societies.

These institutions are becoming more popular and beneficial both to those who have money to lend or those who wish to borrow. In our advertising columns will be found an advertisement under the name of the Agricultural Investment Society and Savings Bank. We approve of the name and have known many of the officers for thirty years who would have nothing to do with a disreputable Society. You can place reliance on them. Your money will be safer with them than in your own hands, and if you wish to procure any we do not but you will find their terms as favorable as can be had in this city.

Crop Prospects.

Since our last remarks on the prospects of the crops, we have travelled over a far greater extent of country than we then had, and find that the winter wheat has been damaged to a much greater extent than we had anticipated. The dry seed time may have been favorable for the spring crops, but it told early against the fall wheat, as the lack of refreshing showers in the early part of the season prevented the fall wheat from standing out as much as it otherwise would have done. Our yield will be very low this year, that is if the fields that have been re-sown with spring grain are thrown into the balance, and they ought to be to show the real results of our agricultural operations.

We have had beautiful refreshing rains during the past two weeks. The spring crops have been put into the ground in much better order than usual, and thus far bid fair for good results.

Foot and Mouth Disease.

To the Ministers of Agriculture:—

From an exchange paper we notice that there is great cause of fear of the importation of the Foot and Mouth Disease into Australia. Short-horns had been purchased in Europe in which no symptoms of the disease had been noticed until their arrival in Australia, which is rather a long journey. Would it not be well to compel imported stock to remain in a quarantine form for a month before allowing them to be shipped in our cars, or mingled with the stock of this country?

Who could estimate the loss if this disease should take root among us?

Our Opinion.

The City of London, Canada, is about to expend an immense amount of money to supply the city with water from a 70 acre mud hole, three miles distant. The supply will not last as long as the time it will take to complete the works.

CHICAGO citizens are about to act dishonorably with the money sent them for the relief of the sufferers by the fire.—There are plenty of needy sufferers, and the money was given for them. They have \$100,000 on hand which they propose expending to spare the future taxation of the rich of the city. They ought to expend it for the purpose for which it was given. We were amongst the first who contributed to the relief fund in this city, and we would not have given one cent for the purpose they propose using the money for. There is a saying that there is "honor among thieves," let there be honor among professedly honest men, and give the money to the existing sufferers who need every cent of it.

The British Lion has submitted to the last annoyance of Brother Johnathan. He will spring to action and bite hard. Mind, mind! keep back, Johnny!

OUR sources of wealth are only commencing to be developed. The iron mines near Ottawa are about to yield immense wealth immediately. The silver mines of Thunder Bay are destined to enrich us to an inestimable extent. Timber and lumber are looked into too much as a source of wealth. The protection of timber and encouragement of planting will soon demand the attention of the Legislature.

The Potato Bug.

The last season taught us what we are to contend with in these dreadful visitants. But we much fear that this year and succeeding years the hosts we will have to do battle with will be increased many fold.—The bugs of last year—as many of them as we suffered to escape—buried themselves deep in the ground, where they have remained comfortable in their winter quarters, and will be ready to sall forth as soon as the first lead of the potato affords them provender. Let farmers take warning, and from their first appearance destroy them as they come. For every ten you kill very early in the season, you may save yourself the trouble of having to kill a hundred later, or, it may be, a thousand still later in the year. We have as yet suffered but little from the plagues of insects compared with the losses of our neighbours. The damage done in the Northwestern States by the Chinch bug and the Colorado potato bug has been estimated at forty million dollars per year. The farmers there are beginning to recognise the fact that such destructive insects must be dealt with as vermin and predatory birds and animals. They must be destroyed by regular, systematic efforts. The best agent for the destruction of the potato bug has been found to be Paris green. Last year's experience gave us ample confirmation that Paris green, mixed with fifteen or twenty times its weight of catched plaster or of flour, was nearly as effectual as the pure mineral. The mixture, when dusted on the vines by the means of a common dredging-box, kills at a blow the larvæ of the potato bug;

but the old ones—the mature, hard-shelled parents—resist the poison some hours. Great care must be taken in the use of this remedy, as it is a virulent poison—a mineral paint, compounded of copper and arsenic. Those who have but a few rods of potatoes planted in their gardens may keep them comparatively safe by picking or brushing off the bugs morning and evening, and making sure (to use an Irish phrase) to kill them dead; but they who plant on a more extensive scale will find the Paris green the best remedy they can use.—ASS'T ED.

VALUE OF THE POTATO CROP.

It is three hundred years since the potato was first brought into general use, and its culture has been only limited by the limits of civilization. Its great importance and its value as a crop may be conceived, when we bear in mind that it is estimated that one hundred and fifty million bushels of potatoes are consumed in the United States for food alone.—ASS'T ED.

POTATOES WITHOUT BUGS.

A writer in the *Western Rural* gives the following mode of planting potatoes:—"Prepare the ground as usual—the drier and richer the better. When warm, plant your potatoes the usual depth, as thick as the soil will warrant. I think one, or, at most, two good eyes in a place best; but if the soil is rich, they may be thick enough so that the whole ground may fill with tubers, and cover with straw sufficient to keep down all weeds, say from three to five inches of straw, and your potatoes will need no more care until they are ready for the harvest. Do not plant till the ground is warm, as the mulch keeps out heat. Cover with earth before mulching, or the tubers will be ill flavored.—The 'Colorado beetle,' or 'Yellow-striped potato-bug,' will not touch them, as its larvae are not migratory; and as it cannot penetrate the straw to reach the earth, the instinct to preserve the race, so strong in all insects, bids it shun the straw-covered ground." We do not guarantee the efficacy of this plan; we give our authority, and advise our friends to make trial of it on a small scale.—ASS'T ED.

HORSE-SHOING.

SIR,—I have been taking your paper for the last four years, and I find that no house should be without it. With your permission, I will give you my plan for horse shoeing:—Six nails in a shoe is sufficient, three on the outside and three on the inside and near the toe; the shoe should be put on with a clip at the toe. It will be borne in mind that in travelling the shoe is driven back, and the nails are loosened or bent, but the use of a clip will prevent this; then, by using eight or ten nails in a shoe, they are driven so far back that the springing of the hoof would loosen the nails and break the shell of the foot, otherwise it prevents the hoof from spreading, and causes the heels to contract.

Sometimes the bearing is on the side, then there should be a clip at the side, but I always use the nails as near the toe as possible. If the horse over reaches, put the shoe on half an inch back from the toe, leaving the hoof; this will stop the creaking noise. If the bearing is more on one side, the shoe should be crooked so as to leave the bearing more even; there are more horses injured by shoeing than in any other way. We should be guided in this somewhat by nature; the foot, before shoeing, is low and broad at the heel, so that the frog rests upon the ground; I always should be kept so by allowing the heel to grow down; it raises the frog from the ground; the heel will then contract and the foot may become diseased. Some persons are afraid of bruising the frog; this cannot be done before the frog is cut. It is a spongy substance, and cannot be injured by a bruise, but after the frog has been cut it becomes a horny substance, something like a horn, and by stepping upon any hard substance, it presses to the quick and causes the horse to flinch; then again, the blacksmith will pare the foot and set

the shoe within half an inch of the toe; the shoe then sets upon the inside of the rim of the hoof, which bruises the foot the next time the horse is shod. It looks as if bloodshot; this manner of shoeing does great injury to the foot; the hoof should be paired as low as it will bear; the pressure then comes alike upon the whole rim of the hoof. The shoe should be leveled on the inside; by so doing, when the foot presses on the shoe it springs out instead of in; this will keep the heel broad. The foot never should be rasped above the nail; if so, it will become brittle and break. If persons would adhere to this principle of shoeing, there would be less crippled horses. A FRIEND.

TRIAL OF SEEDS.

SIR,—The half bushel of Norway Oats I received from you two years ago yielded 49 bush. I have sowed them on just half an acre of land this year, and I have sold hundreds of bushels of seed to my neighbors, many of whom had seen the oats growing and had aided in threshing them. The peck of Early Rose potatoes yielded 28 bushels. I wish you every success in your undertaking; I have profited more from the seeds procured from you than from any other source. The wheat has also given me the greatest satisfaction. DAVID WALKER, Derwent, May, 1872.

Movements in Thoroughbred Stock.

At no time has there been such an active trade going on in high class stock as at the present time. Several of our leading breeders have gone to England in quest of choice animals to import this season for the improvement of our stock. Among those who have gone, we note Robt. Miller (son of Geo. Miller), Markham; D. Reesor, jr., Markham; Simon Beattie, R. Gibson, Wm. Long, M. H. Cochrane, Jas. Russell, Wm. Thomson and others. A recent letter from Simon Beattie states that between the rinderpest and foot-and-mouth disease stocks in Britain have been so seriously reduced that what remain command very high prices, and that great difficulty is experienced in obtaining stock. He has already shipped some 25 head of Ayrshire, several Short-horns, 60 sheep, several heavy draught stallions, for himself and M. H. Cochrane. He gives a very favorable account of the prospects of crops in Britain this season, the spring having opened early and proved unusually favorable to the agriculturalist. This is quite in contrast with Canada, where with a late spring the newly sown grain crops are suffering severely for want of enough rain.

The demand created for fine stock in Canada, principally through the efforts of American breeders to improve the blood of the cattle and sheep on the plains of the Great West especially Kansas and Colorado, is telling favorably on our breeders, and inducing them to pay more attention to breeding pure-blooded stock. Mr. Wm. M. Miller (son of John Miller) of Bringham, returned from Colorado last week, where he went with ten head of young Short-horn bulls from P. C. Kern, which he quickly disposed of at handsome prices, eight of them going to Salt Lake City, Utah. He intends returning with 20 or 30 more young bulls, and says the demand for Short-horn bulls and Cotswold and Leicester rams is almost unlimited, and prices going exceedingly satisfactory. Mr. Lumsden, of Toronto, takes several head of Short-horns from the herd of F. W. Stone, of Guelph, to Manitoba, where they will form the nucleus of a herd to supply fine cattle for grazing the almost illimitable plains of that fine and well watered province of our Dominion. Some large sales of short horns by auction come off in June, notable among these being the entire herd of J. M. Bell, of Atha, who has decided to retire from agricultural pursuits, and whose herd of Short-horns is of very high and even quality throughout. Col. W. S. King, of Minnesota, also has a large sale, June 19 at which it is expected some of the highest figures ever paid for stock will be realized.—Ext.

The growing crops in England give good promise, and the weather has been fair and favorable. Though the spring has been late and cold, and there are prophet of autumns in winter crops, we have good prospects for the agricultural interests of Canada.

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Robin's Come.

From the elm tree's top, most bough,
Hark! the Robin's early song!
Telling one and all that now
Merry Spring-time hastes along;
Welcome tidings dost thou bring,
Little harbinger of Spring,
Robin's come.

Of the winter we are weary,
Weary of its frost and snow,
Languishing for the sunshine chery,
And the brooklet's gurgling flow;
Gladly then we hear thee sing,
The joyful reveille of Spring;
Robin's come.

Ring it out o'er hill and plain,
Through the garden's lonely bowers,
Till the green leaves dance again,
Till the air is sweet with flowers!
Wake the cowslips by the rill,
Wake the yellow daffodil,
Robin's come.

Then, as thou wert wont of yore,
Build thy nest and rear thy young,
Close beside our cottage door,
In the woodbine leaves among.
Hurt or harm thou need'st not fear,
Nothing rude shall venture near,
Robin's come.

Singing still in yonder lane,
Robin answers merrily,
Ravished by the sweet refrain,
Alice clasps her hair with glee,
Calling from the open door,
With her soft voice o'er and o'er,
Robin's come.

Our Farming Lands.

HOW THEY COMPARE WITH THE VAUNTED PRAIRIES.

Editor Daily Telegraph.

Str.—With your permission I will resume the consideration of the relative value of woodland and prairie for farming.

The reason, as a permanent cause, often assigned for these portions of the continent being destitute of trees—namely, the prairie fires—cannot, for a moment, bear investigation (and it is in this that our European and American friends are in error). "Remove the cause and the effect ceases to exist," say the agriculturists; and every year the seeds of forest trees are sown, and saplings in the woods taken from Canada are planted, in the vain attempt to produce what nature has denied them, or what would perish even if it existed, except in favoured localities. Fires were naturally suggested to the first rude settlers, to whom the evidence of sight is the chief guide, as the only cause. In many parts of the African, Asiatic, and American deserts and prairies there are no fires; still they are treeless. In other parts fires are as frequent as the forest is permanent, or if burned down, as during last year in parts of Canada, young trees immediately grow up again. The existence of forests over a region of 2000 miles by 1000, and their failure where and on which the summer rains fall, and the arid winds prevail, ought to have suggested the explanation. That the prairie fires, sweeping over extended areas, may have kept trees from some very limited localities, near rivers or on retentive soils, I do not deny. But such exceptions, limited and local, have no weight in opposition to the fact, that millions of square miles have remained through all the ages of history, desert and treeless on the borders of other equally extensive areas covered with dense forests. The climate which has produced the two distinct results over these regions have remained permanent throughout all those vast ages, and will remain permanent in the future, unless changes so enormous in the entire European system; but for the calculations of such imaginary phenomena astronomy has furnished no data. We may infer therefore that these conditions of climate, heat and humidity in one case, and heat, aridity in the other, remaining the same, their effects on forests and treeless regions will be permanent expressions of those fixed efficient causes. We append a few thoughts naturally suggested by what has been said, or as applications, limitations, or modifications of the facts and arguments, here adduced.

1. I question whether there is an acre of what a Canadian or English farmer would call good agricultural land between the Mississippi and the Pacific. Climate, not soil, is the great consideration; and the want of rain, the remarkable aridity of the air, saline soil, cold nights, &c., render it impossible that I could be a good agriculturist—even to the extent of one square mile. No doubt as we go north into Minnesota and Wisconsin these deteriorating agencies are less potent. Prairies in high latitudes, where, as in the Manitoba country, the rain falls in excess of the evaporation, have usually sufficient moisture in the ground with the frequent copious rains, for agricultural purposes.

2. Some cultivated grains have so great a range, north and south, by a proper adjustment to the earier or later months of growth, that they may be produced in climates quite inferior. But plants, which require the summer for their growth and maturity, and especially pastures and meadows, must fail in such climates.

3. The cereals, coarser grains, and even maize (a tropical and semi-tropical plant) produce most abundantly near their northern limits. Indian corn has yielded three and fourfold more in latitude 43 deg. and 44 deg. than in its native climates. Wheat and other grains produce twice as much in England as in Central France; wheat, barley, oats, peas, and the grasses yield vastly more in Canada than in the best agricultural districts of the States. The crops, too, are surer, and of better quality.

4. The grasses almost entirely fill—cultivated grasses (pastures)—over the Western prairies, and further South the timothy runs to a coarse cane, and even maize; more to cane than to grain.

5. Wheat will ripen in a summer temperature of 57 deg., with one month of 58 deg., as at Aberdeen in Scotland. In interior climates, as on the Saskatchewan and Mackenzie rivers, it requires a summer of 62 to 65 degs. In England it ripens at a temperature of 60 deg.; at Kasan (in Russia) at 60 and 69 deg. With a temperature above 70 deg., it fails to fill and soon ripens. Maize requires a summer of 65 deg., with one month at 67 deg. (the most favorable climate for both maize and grapes); hence the immense areas in the north-west in Canada favorable for wheat, oats, and peas; barley, rye, the grasses and many root crops going five to seven degrees farther north than wheat.

6. Great Britain, one of the most favored regions for these products, has a summer of from 60 to 65 deg. (London 61 to 69 deg.; Glasgow 60 deg.; Swansea 62 deg.; Dublin 60 deg.; Liverpool 57 to 60 deg.; the central counties of England 62 deg.).

7. Canadian summers necessarily varied over such a vast region, may be stated at 64 to 70 deg. (Halifax 60 to 68 deg.; Fredericton, New Brunswick, 64 to 66 deg.; Quebec 66 to 91 deg.; Montreal 70 to 78 deg.; Ancester, near the head of Lake Ontario, 65 to 71 deg.; the Muskoka country, 100 miles north of Toronto, 68 to 69 deg.; Vancouver's 61 to 65 deg. (about the same as London). The summers of Illinois, Missouri, Kansas, and the whole country east and north-east of the desert, are 10 to 15 deg. higher than the best district for the grains and grasses. Illinois has a summer of 74 deg.; Ohio 70 to 84 deg.; Iowa 72 to 78 deg.; Kansas and Missouri higher still. These temperatures are ten degrees too high for wheat, barley, &c., and the cultivated grasses. Hence the beginning of this summer heat is the end of the farther growth of these plants; they immediately wither up. Add to this the summer droughts, and winds, and the other attendants of a prairie region, and we have a climate destructive of the temperate zones.

8. "Providence," it is said, "are ready for the plough; the farmer on wooded land is better off during even the first years; and from the superiority of his climate and lands in almost every respect, his position after twenty years' labor, will be incomparably above that of the prairie farmer—I refer to the prairies of the Western States, a region of arid winds, if not rainless in summer.

9. "America is colder than Europe," is an expression we often hear. No language could more loosely and erroneously state the climatic conditions of the two continents. If western coasts are compared with western, and eastern with eastern, we have similar climates; but the summer temperatures on even the eastern parts of America are higher than in the western parts of Europe, as we get a little from the coasts; and the summer temperatures are those of chief importance in a riculture. Notwithstanding the cold winters in Lower Canada, the summers are from eight to ten degrees warmer than in England and the north of France. In the valley of the St. Lawrence the summers are warm enough and long enough to mature maize far north of Quebec, and maize will not ripen in either England or the north of France.

10. None can point to any country, such as the Western prairies, on the borders of deserts, that have ever had great manufactures, or great accumulations of wealth. Through effects of climate, man never attains the highest development, physically or mentally, and is incapable of sustaining the continuous labor necessary in heavy industries; commerce languishes through want of materials for its support. There, man never reaches the high standard, socially or physically, which he attains in the favorite regions of agriculture, manufactures and commerce, and necessarily the centre of the greatest accumulation of wealth.—J. H.

WINTERING BEES.

Str.—As you wish your readers to write for the paper, I make the attempt:—I see several modes of wintering bees, and find on enquiry from different parties who have used all manner of queer hives, that they lose their bees to a great extent during the winter. I will give you my mode of wintering bees: I dig a long trench about two feet deep, and lay two poles

along the bottom, sufficient to admit of plenty of air. I place my hives in this trench and place boards along the sides and on the top to prevent the earth from coming in contact with the hives. I make two vent holes by putting in two stove pipes. I have wintered bees for the last four years and have never lost a swarm since I adopted the above plan; previous to trying this plan I always lost more or less every winter. If this is of any benefit to your readers publish it; if not, burn it.

Many complain of the high charge you make for the services of your horse, and considered me a fool for paying double the price others paid. But what is the result? I have just sold a three year colt by "Anglo-Saxon" out of a common mare, for \$300. Some of my neighbors would be glad to get \$100 for their four and five year olds. Success to the Emorium.

R. HESTLEY.

Delaware, May, 1872.

SORE TEATS ON COWS.

Here is an item, attested to by D. B. Watts and others, of Illinois, which is alone worth more to every farmer than the cost of his newspaper for a year, were he to learn nothing more from it. Mr. Watts, as well as some of his neighbors, had cows, in the spring, at the time of dropping their calves, with udders and teats so sore that they would not allow the calves to suck or the milk to be drawn; the cows were suffering, and some plan must be devised by which they could be milked. Finally, he took the quills from a chicken's wing, and cut a small piece from the ends so as to open them, then cut notches or slits near the feather parts to make an opening clear through, then he carefully inserted them into the swollen teats, and at once the milk commenced to run out, and the cows were relieved; the teats and udder soon got well, and the cows could be milked in the usual way. Other farmers can remember this, and when occasion requires they can try it, being gentle and careful with their cows, and may find benefit from it. Surely, it is worth trying.

A REMEDY FOR THE HEADACHE.—Dr. Warburton Begbie, (Edinburgh Medical Journal) advocates the use of turpentine in the severe headache to which nervous and hysterical women are subject. "There is, moreover," he says, "another class of sufferers from headache, and this is composed of both sexes, who may be relieved by turpentine. I refer to the frontal headache, which is most apt to occur after prolonged mental effort, but may likewise be induced by unduly sustained physical exertion—what may be styled the headache of a fatigued brain. A cup of very strong tea relieves this form of headache, but this remedy with not a few is perilous, for bringing relief from pain, it may produce general restlessness—an—worst of all—bavish sleep. Turpentine in doses of 20 to 30 minims given at intervals of an hour or two, will not only remove the headache, but produce a wonderful summer that soothing influence to which reference has been made.

An intelligent correspondent expresses in the following paragraph a view which we have seen advanced by several good farmers:

"I am a decided advocate for milking cows up to calving; if the milk gets thick throw it away, but milk the cow. Always give her to understand that giving milk is her business, and keep her at it late and early. A cow that gives a moderate steady yield up to calving is far preferable to one that is very flesh immediately after calving and then dries up before six months have passed."

You all know the Golden Rule. "Do unto others as you would wish them to do unto you." Here is a rule which is almost a part of the Golden Rule, but which we will put by itself, and, because of its value, call it the "Silver Rule": "Think and say all you can of the good qualities of others; forget and keep silent concerning their bad qualities." You cannot conceive how much such a course will lighten your own happiness, and raise you in the esteem of your companions. Did you ever think any more of a boy or girl because he or she found fault with others? Never call your school mates or pay-mates ugly or cross to their faces or behind their backs. If they are ugly, or stingy, or cross, it does not make them better for you to talk or think about it, while it makes you love to dwell upon the faults of others, and causes your own soul to grow smaller, and to become like the fool bird that prefers carrion for food. Pardon all the good you can, and try to win a good quality of your master.

The Farmer Feedeth All.

My lord rides through his palace gate,
My lady sweeps along in state,
The sage thinks long on many a thing,
And the maiden muses on marrying;
The sailor plucks the foaming sea,
The huntsman kills the good red deer,
And the soldier wars withouten fear;
But fall to each, what'er befall,
The farmer he must feed them all.

Smith hammereth cherry red the sword,
Priest preacheth pure the Holy Word,
Dame Alice worketh broderie well,
Clark Richard tales of love can tell;
The tap-wife sells her foaming beer,
Dan Fisher fisheth in the mere,
Ane courtiers ruffle, sit ut and shine,
While pages bring the Gascon wine;
But fall to each, what'er be fall,
The farmer he must feed them all.

Man build his castles fair and high,
Wherever river runneth by,
Great cities rise in every land,
Great churches show the builder's hand,
Great arches, monuments and towers,
Fair palaces and pleasing bowers;
Great work is done, be't here or there,
And well man worketh everywhere;
But work or rest—what'er befall,
The farmer he must feed them all.

FOR FORT WILLIAM.—The steamer Frances Smith, which has been changed this season to the route from Collingwood to Fort William, left on Wednesday of last week on her first trip to the latter place, having on board about 300 passengers; 15 span of horses; 30 head of cattle; and about 400 tons of general freight; this, on the second trip of the season to Fort William gives some idea of the number of emigrants which may be expected to leave for Manitoba during the coming summer. The steamer Chamberland left for Lake Superior last Friday night, carrying a full freight and upwards of 600 passengers, a number of whom are going to the Gold and Silver mines of Thunder Bay and Shebandowan, either to prospect or work on claims already taken up.

GOOD FEEDING.—Feed liberally. Feed at regular times. There is no profit in poor animals of any description. They eat more and fare worse than animals liberally fed, and they return less profit. See that the food is clean and palatable. The hens on the hay-mow and the dirty feet of men and children running over hay and green corn fodder on the barn floor, do not improve it, or render it more palatable to a cow of nice taste, and if she seems dainty under such circumstances, blame yourself and not her. The waste and want of economy in some barns from these and other causes is often enormous. A really good and judicious feeder of stock is rare. Feeding is an art to be acquired by the most careful experience and observation, and few attain proficiency in it.

London Markets.

GRAIN.
White fall Wheat, per bush.—\$1 40 to 1 4
Red fall Wheat..... 1 38 to 1 41
Spring Wheat..... 1 35 to 1 39
Barley..... 50 to 54
Potatoes..... 60 to 64
Oats..... 36 1/2 to 36 1/2
Corn..... 58 to 65
Rye..... 50 to 50

Burlington.

Leaving the East and arriving at Chicago or Indianapolis, how shall we reach the west? The best line is acknowledged the C. B. & Q., joined together with the B. & M. Railroad by the Iron Bridge at Burlington, and called the Burlington Route.

The main line of the Route running to Omaha, connects with the Great Pacific roads, and forms to-day the leading route to California. The middle branch, entering Nebraska at Plattsmouth, pass a through Lincoln, the state Capital, and will this year be finished to Fort Kearney, forming the shortest route across the Continent by over 100 miles.

Another branch of the B. M. diverging at Red Oak, falls into a line running down the Missouri through St. Joe and Kansas City, and all Kansas. Passengers by this route to Kansas see Illinois, Southern Iowa, and Missouri, and by a slight divergence, can see Nebraska also.

Lovers of fine views should remember the Burlington Route, for its towns "high gleaming from afar" its tree-fringed streams—its rough bluffs and quarries its tree-fringed oceans stretching over the prairies further than eye can reach.

Land-buyers will be sure to remember it, for they have friends among the two thousand who have already bought farms, from Geo. S. Harris, the Land Commissioner of the B. & M. R. R. at Burlington, Iowa, or among the four thousand home-seekers and pre-emptors who last year filed claims in the Lincoln land office, where "Up to him is rich enough to give us all a farm."

Correspondence.

BEET ROOT SUGAR.

SIR.—Thank you for your kind attention to my wishes in sending me the sample of beet root sugar produced by Mr. Kraft, of Bridgeport, Ont.

Mr. Kraft deserves well of the country for his enterprise in undertaking the manufacture; but I much fear, unless he has a very large capital, that he will be disappointed. I think he has taken wrong ground; he is evidently attempting to make sugar fit for, to say the least, family consumption. I take different ground, and say that the Canadian farmer and small manufacturer ought to confine themselves to making a rough crude article, fit for the use of the refiner. This any person of ordinary intelligence can do when he is once instructed. The refining of sugar takes enormous capital, great skill, continuous work and extensive chemical knowledge all the year round.

The producer of the roots necessarily can only work three or four, perhaps five months of the year; the remainder of the season is devoted to the growth of the roots and other farming operations, and, during this time, if he attempts refining, not only are his utensils going to waste, but the materials necessary for refining are absolutely being destroyed. The unused refuse, too, whether in the shape of unpurified molasses, washings of the bone or other matter which in the hands of the refiner is turned into profit, becomes a dead loss in the hands of the person who only works on a small scale and for a short period.

I have just completed a series of working experiments on beet root sugar, and have proved all the facts relating to it, and I have now ready for publication a short treatise with full instructions to the farmer and small manufacturer how to grow the roots, and then how to reduce them to a state fit for the operations of the refiner. I have divested the whole process of all mystery, have made it plain in language, and suitable for the information of persons who have received only a limited education. I have done away with all chemical terms and heavy calculations, and I think, put the information in such a plain and useful shape that no farmer who reads an agricultural paper will feel alarmed when he reads it, as many do when they come to an article full of hard and scientific names, chemical terms, and algebraical calculations and statements. This little work would have been in the hands of the public by this time but for the printers' strike in Toronto. It will appear shortly, and I shall then take care that it is circulated as widely as possible, and I hope to see it in every newspaper in the Province which takes an interest in agricultural affairs. It has not been written for profit.

If you feel any curiosity to see some of the manufactured article, such as I recommend the preparation of, I shall be happy to send you some if you can get anybody to call for it. Yours truly,
E. C.
Toronto, May 3rd, 1872.

[We are thankful to Mr. Cull for his valuable information. He says truly that Mr. Kraft deserves well of the country. At a great sacrifice of labor and money he has demonstrated what may be done and what will yet be accomplished. It may perhaps be better, as "E. C." says, that the farmer should only raise the crop and prepare it for the refiner. The division is often advantageous, but Mr. Kraft has proved that a farmer may till the ground, raise the crop, and even then proceed step by step till he has from it produced a good sugar fit for family use, and if he still perseveres he will yet do better. He has a just claim on the country, not merely for their gratitude, but for remuneration for his great outlay. On establishing the first Canadian beet root sugar factory at his own expense, it has not proven remunerative at first, as much has to be learned; but he has laid a foundation from which much wealth to the country will accrue. Such an undertaking deserves further aid.]

TREES.

SIR.—A great deal has been written lately by several of your correspondents about trees. Some articles, too, have appeared in the Advocate on this subject which I think were written by yourself. Now, I am not going to say one word against anything I have read on the subject; for I not only fully endorse the sentiments expressed—all, as far as I can recollect, being in favor of trees—but I also believe a great deal more. For a farmer to cut

down all the bush on his farm is, of course, very foolish, even if nothing but the advancing value of timber and firewood be taken into account; but it is also very imprudent for him to cut down all the trees, even where he does clear his land for cultivation. A few trees left in each corner of the field, or on a rocky or very stony spot, if such there be, would prove of very great advantage, and would not at all interfere with the cultivation of the land. Nor would they detract in the least from the appearance of his farm; indeed they would be far more ornamental than otherwise. Where at all practicable, a row of trees should accompany every line of fence on the farm. The beneficial results which would accrue from this may easily be seen upon a few moments' consideration. Both man and beast would share in the benefits, and in many cases the crops, too, would give their testimony in favor of the trees. How painful to see, in a field where there is not a single tree to ward off the scorching rays of a midsummer sun, the poor horses and cattle vainly trying to screen themselves from the burning heat in the corners of the fences, lashing themselves with their tails to keep off the tormenting flies, and stamping with their feet, thus plainly evincing the torture which they are compelled to endure. I once boarded with a farmer's family where this was the case on his farm; and often when I went to the field to get my horse, I found him thus suffering, and his body, or rather the hair on his body, so hot as almost to burn the hand when touched. Surely this must be very injurious to animals, as it unquestionably makes them miserable when they might and ought to be comfortable.

Nor is it unworthy of notice that trees encourage many kinds of birds, and as birds, that is, most of them, are both beautiful and useful, besides being capable of rendering the most exquisite, sweet, and heart-cheering music, should they not be encouraged in every possible way?

Besides, it is my growing conviction that trees exert a wonderful influence in regard to rain. I believe that generally where the most trees are the most rain falls. Consequently, if this be so, as the country becomes stripped of its woods it must necessarily become more subject to drought. Have not the last ten years been corroborative of this proposition? I think they have, at least in this part of Ontario; and I hope that these painful illustrations of the truth of this theory will bring farmers to their senses and stop them from thus spoiling their farms and ruining the country.

Some may think this a very erroneous idea, and will see no connection between trees and clouds, but these people must remember that many such connections do exist where we fail to see the reasons. For instance: why does lightning strike trees? For the cause, we are referred to the laws of electricity. Then if electricity acts in one case, why not in the other?

In conclusion, every farmer should have as many trees as possible on his farm. And, according to my opinion, where farmers fail to do so of their own accord, I think those who manage the affairs of the country and who are supposed to have the interests of the country at heart, should require every farmer who has not done so, to plant a row of trees in front of his farm.
JAS. LAWSON.
Battersea, May 6th, 1872.

NORTH NORWICH FARMERS' CLUB.

SIR.—Knowing that you are deeply interested in the farmers' cause, I thought you would like to hear of an effort being made in this part of the world to form a Farmers' Club. On the evening of Saturday, May 11th, a meeting was held at Mr. H. S. Losee's Cheese Factory, to organize the now "North Norwich Farmers' Club." The meeting was a perfect success, because enthusiasm was unanimous. Considering the busy time, there was a goodly attendance. At eight o'clock the chairman (Wm. S. Moore) called the meeting to order. The following Constitution was drawn up and accepted:—

ARTICLE 1.—The undersigned hereby associate themselves as the "North Norwich Farmers' Club." Their objects in so doing are to promote their own welfare and intelligence, as farmers and citizens, and their enjoyment socially with their families.

ARTICLE 2.—The members of the Club are the only frame this Constitution and conform to its requirements, together with others who may be invited to join by the Executive Committee, all of whom shall pay each 50c. annually.

ARTICLE 3.—The officers of the Club shall be a President, a Secretary (who shall also be

the Treasurer), and three members, who, with the President and Secretary, shall constitute the Executive Committee. A President shall be chosen at each regular meeting. A Secretary and Treasurer shall be chosen annually. The remainder of the Executive Committee shall be elected at the first regular meeting, and shall hold office until deposed by not less than a two-third majority of all the members.

ARTICLE 4.—The President shall perform the duties usually devolving upon the presiding officer of a deliberative body, and act as chairman of the Executive Committee. The Secretary shall keep records of transactions, and be custodian of all the funds and other property of the Club, being accountable at all times to the Executive Committee, giving bonds, if required; and shall prepare and present a full report to the Club at the annual meeting. The Executive Committee, three members of which shall be a quorum, shall have general charge of the interests of the Club and the carrying out of its objects. It shall fill vacancies in its office, make rules, invite new members to join, regulate expenditures, manage exhibitions or fairs, publish offers of prizes and the awards, be responsible for the welfare of the Club, and report at the annual meeting through its clerk.

ARTICLE 5.—The meetings of the Club shall take place on the second Saturday of each month, the meeting in January being known as the "Annual Meeting."

ARTICLE 6.—This Constitution may be amended by a vote of two-thirds of the members present at any regular meeting, notice being given at the preceding regular meeting.

The following officers were then elected:—President—B. J. Palmer; Secretary—H. S. Losee; Executive Committee—The President, Secretary, Wm. S. Moore, James Ghent, and John Pollock.

"Soiling" was the subject then chosen for discussion at the next meeting. The President is to make the opening speech.

At the close of the meeting twelve parties signed the Constitution, and became members. At the next meeting a great many more are expected.

Now, Mr. Editor, if the above is of any interest publish it, as it may encourage other communities to form Clubs, so that in time the farmers may act as a body, and not as so many independent but non-influential persons.
—Yours truly,
B. J. P.
New Durham Ont., May, 1872.

"B. J. P." will accept our thanks for his useful article, which may be of some assistance to others. We hope to receive communications from each Farmers' Club giving accounts of progress, management, requirements and reports of discussions. They may be forwarded to us at 1c. per oz. by writing "Printer's Copy" on the wrapper. When such are first published in the local papers, and you desire us to notice them, please cut out the articles to ensure our attention and send it alone, as hundreds of papers arrive at this office that we have not time to open, much less to search through all the matter in each for anything that may be interesting.

LARGE YIELD OF BARLEY.

SIR.—In looking through the May number of your paper, I saw a very lengthy and instructive article on "Barley, and its Cultivation." I think that piece alone is well worth the price of your paper for a year. I feel very much obliged to the Secretary of the Hamilton Farmers' Club for the valuable information he has given.

I give you an account of a field of barley I grew in 1871. If you think it worth anything, it is at your disposal. Late in the fall of 1870, I sowed 5 1/2 acres of sod; it had been in grass for 5 1/2 years. The last week of March, 1871, I sowed 11 bushels of barley per acre (of the six-rowed kind), harrowed twice to a place each way, and after sowing rolled with a heavy roller. In May it was cut bad with the frost (it was about two inches in height). It was harvested the first week in August, and yielded three hundred and fifty bushels of grain.

A READER OF YOUR PAPER FROM THE FIRST NO.

[As we are acquainted with the writer, and know him to be a leading farmer in his section, we insert his communication. Although he wishes neither name or residence to be mentioned, we would prefer giving names to such articles; but many have a dislike to give their names to the public.]

A FARMER'S EXPERIENCE AND OPINIONS.

SIR.—As you are continually asking subscribers to write for the Advocate, I will give you a little of my experience; and if you think any of your subscribers can learn anything from it, you are at liberty to publish it; if not burn it.

The fall wheat in this section is badly winter-killed; many farmers are ploughing it up, and in the middle of the fields, in many cases it is completely killed. We have two mares and two two-year old colts on my father's farm, which, during the past winter, were stabled at night, and fed straw with a small quantity of oats twice a day, and let run to the straw yard during the day. They were thin in condition when taken in to winter; about New Year's they took to going to the hog pen, and eating the dung which came from the pigs; they immediately began to gain in condition, and continued to do so until spring, when we had to keep them in the stable, for when the frost came out of the manure they would sink to the knees. Now, I do not know whether this is new to any of your subscribers or not, but it was new to me. I never saw or heard of the like before.

This spring I purchased one of Gray's light Canada iron ploughs; I have worked it in all kinds of land, rough and smooth, and it gives me perfect satisfaction. It is the easiest working plough I ever used; it is light and strong, and I think taking all things into consideration, it is the cheapest plough any one can buy. Perhaps you may consider this in the light of an advertisement; if so, leave it out; it is of no benefit to me; I have no axe to grind.

I was much pleased with the discussion of the Hamilton Farmers' Club on barley, given in the May number of the Advocate. I hope you will be able to give your readers the benefit of their discussion on turnips, carrots, &c. I was also much pleased with Mr. Kraft's communication on beet sugar. He claims the honor of making the first beet sugar in Canada; I think the Government should aid him in his enterprise. I have grown sugar beets for the past two years; I find them splendid food for milk cows; they are large croppers and easily grown. I think much easier than turnips. I made molasses from them in Jan., 1871, but found I had not the right method, and for other reasons I have not tried the experiment since.

I should like to know your opinion about wolf teeth in horses. Should they be knocked out as is commonly done, or not? Also, should lamper in colts be burnt?

I never wrote for the press but once before, and then it was rejected. I have taken up more of your valuable space than I at first intended. Hoping you will correct all mistakes, I will conclude.—Yours, &c.,
Novica.

North Oxford, May 13, 1872.

[1st Query—The wolf teeth are not to be knocked out unless they interfere with mastication. 2nd query—The lamper are not to be burnt out. A little cooling medicine is to be given, and soft diet.—Sometimes the lamper is scarified.]

LARGE YIELD OF SEEDS.

SIR.—I send you the amount of the seeds I got from you last year. The King of the Earths, 1 lb., produced 90 lbs. of beautiful potatoes. The peck of Bresser's Prolific did not do so very well. They were twice cut off with the frost; they produced about three bushels. I consider both kinds excellent.—The New Brunswick oats, 4 bushels, produced 11 bushels. I sowed them on gravelly land.

I like your paper very much. I am taking two papers besides yours; it is almost more than I can afford, but I don't intend to give up the Advocate.—Wishing you every success, I remain yours,
Geo. Dobson.

Tuckersmith, May 3, 1872.

POTATO PLOUGH.

SIR.—Having used one of your potato ploughs last fall, we found it one of the most useful implements for digging potatoes that could be invented. It is in gathering potatoes what the hay rake is in the hay field, an indispensable article, and one which, where a farmer has any amount to dig, is a paying implement, in fact, many times over each season. DEAN TIFFANY,
Knoxville, April 26th, 1872.

TILLING CORN

SIR.—As I have experience in clearing the result for the who may have h

It has been recent crop, and if may answer we clay loam, such ure. Such a soil spring, and when that barley would The first piece was ploughed in wheat, but although dry, the re was again ploughed in the showery the eight or nine the pods were smothered the The next crop with clover, which I cleared was so the winter well red clover at the acre. The clover was injured by lent that year, following season and in Sept. grass, but the best, as the p than two inches fodder, I cut the clover was it under, and had penetrated six inches. La and also as a fit the severe drought but the pods sown with whe and I have a next piece was with Treacle well, except it was or remaine took well, and fair crop of clo the piece on you have this year are now coming next fall. I ver after the repeat the wh in a wet summe do so, consequ and then wh years, until t fire can be res should prefer with suitable the log heaps to dry, it wou full to burn th very dry, as, soil, it will b and destroy can be sown summer fall, and harvesting tlers in the b year's crop, they might a year or two. last paper m of the "Illu for 1861, p. found it very table use, is of the count owing to th

An effecti the rows is let it remain off, and mi so that eve then mix w to prevent though wo at hand. I no partiall two, he wil fast elsewh pestered by last shot on zard some o one of thei bird.

I fully your corre sending me is done we and organi the best v The Quee pray for al is the farm Your o wants an i he appears Edinburgh purposes,

TILLING BURNED LANDS. CORN AND STEAM POWER.

SIR.—As I have unfortunately had some experience in clearing up burnt land, I will offer the result for the benefit of any of your readers who may have had their land swept by the destructive fires so generally prevalent last year. It has been recommended to sow barley as a first crop, and if there is any black soil left it may answer well if sown early, but for a stiff clay loam, such as I have, it would prove a failure. Such a soil holds the water too long in the spring, and when it burns dry bakes so hard that barley would have no chance to get on. The first piece of such ground that I cleared was ploughed in the fall, and sown with spring wheat, but although the season was not particularly dry, the result was not very favorable. It was again ploughed in the fall, and sown with peas in the spring, and the summer being showery the pea straw (Golden Vine) was eight or nine feet long, and well podded, but the pods were not well filled; but the peas smothered the weeds and mellowed the soil. The next crop was oats and peas, sowed thin with clover, which took well. The next piece I cleared was sown with fall wheat, which stood the winter well, and in the spring I sowed early red clover at the rate of twelve pounds to the acre. The clover took very well, but the wheat was injured by the rust, which was very prevalent that year, and a little by the mildew. The following season I took off a crop of clover hay, and in Sept. attempted to plough in the after-grass, but the ground was so hard that I had to desist, as the plough would not penetrate more than two inches deep, so, being rather short of fodder, I cut the clover again, and in Nov., when the clover was about six inches high, ploughed it under, and found that the roots of the clover had penetrated the hard subsoil from four to six inches. Last year I had peas on that ground, and also as a first crop on another piece; but the severe drought made the straw very short, but the pods were well filled. It was again sown with wheat last fall, which promises well, and I have again sown it with clover. The next piece was a ten acre field, which I sowed with bread wheat, which stood the winter well, except in some level places, where the water remained too long. And the clover also took well, and in spite of the drought I had a fair crop of clover last year. The clover failed on the piece on which I had wheat last year, so I have this year sown it with Kentucky oats, which are now coming up, and I will report results next fall. I would prefer to plough in the clover after the wheat, instead of cutting it, and repeat the wheat with clover again, but, except in a wet summer, it would be scarcely possible to do so, consequently, peas and oats must follow, and then wheat and clover again for a few years, until the vegetable soil destroyed by the fire can be restored. In the case of a swamp I should prefer to log all the timber and sow it with suitable grass seed for a meadow; but as the log heaps would rot and be left for a year to dry, it would be necessary to be very careful to burn them off before the ground became very dry, as if the fire once gets into the black soil, it will burn under the roots of the grass and destroy the meadow. Where the ground can be sward the first year, I should prefer a summer fallow, with two or three ploughings and harrowings before sowing wheat. But settlers in the bush cannot always afford to lose a year's crop, and if they have not much pasture they might allow the clover to remain for a year or two. The corn horse figured in your last paper may be found figured and described in the "Illustrated Register of Rural Affairs," for 1864, p. 45, from which I made one, and found it very useful. Indian corn, except for table use, is not extensively raised in this part of the country, as it is a very uncertain crop, owing to the early fall frosts.

An effectual way to check the depredations of the crows is to pour scalding water on the corn, let it remain about five minutes, then drain it off, and mix a little coal tar, stirring it about so that every grain may be well coated, and then mix with a sufficient quantity of plaster to prevent the grains sticking together, although wood ashes may do if there is no plaster at hand. Mr. Crow (not being a sailor) has no partiality for tar, so, after trying a grain or two, he will shake his head, and seek his break fast elsewhere. Before I knew this I was much pestered by their depredations, and having at last shot one I opened it and found in the gizzard some grains of corn, and a few small bones, one of them evidently the back bone of a small bird.

I fully agree with yourself and some of your correspondents as to the necessity of sending more farmers to Parliament, as till this is done we need not expect to get our rights, and organization amongst farmers appears to be the best way of accomplishing that object. The Queen may govern all, the bishop may pray for all, the soldier may fight for all, but it is the farmer who must pay for all.

Your correspondent, "Old Subscriber," wants an iron horse to do all his farm work, but he appears not to be aware that Thompson's Edinburgh Road Engine will answer all his purposes. It weighs six and a half tons; has

three wheels, with India rubber tires, two feet broad and six inches thick, and will run on any ordinary waggon road, however rough it may be. The India rubber tires will bite on ice or frozen snow, so that it would run on our roads in winter as well as in summer. The first time it was publicly exhibited, it easily drew three double furrow ploughs in a field where three stout horses had enough to do to draw one such plough. I have seen it stated that that one was imported into the State of Massachusetts, and when exhibited turned over seven furrows at once, nine inches deep and fourteen inches wide. Before the Franco-German war one of them was used to draw an omnibus containing fifty persons through the streets of Paris, and looked like a small tug towing an East Indian. On those smooth, level streets it attained a speed of twelve miles an hour, but on ordinary roads it generally runs about eight miles an hour. The price, before the late rise in iron, was £600 sterling, but probably it would now cost about \$1000, laid down in Toronto—rather an expensive horse for a farmer to buy for his own use, although it might pay to perform the ploughing, thrashing, etc., for a neighborhood.

The fall wheat in this section of the country, having been well protected by snow, looks well, as far as I can learn, but it has been a hard winter for cattle, and worse for the manure heaps, but the grass is coming on now, and the lactical produce of the cows is increasing in quantity. Not to occupy too much of your space at one time, I must defer some remarks on other subjects for another occasion.

CHARLES JULYAN. Edgewater Farm, Sarawak.

[Mr. Julian, and all other contributors who send us useful information, will accept our thanks. Every one that contributes information that will be of value to others is a benefactor to his country. There are many, many readers who may, perhaps, criticise our attempts—may think they know more than can be taught them; and others, no doubt, are better versed on some subjects, but they are like sponges, absorb all they get, and never impart without pressure; they keep their lights under a bushel. We hope more of our farmers will shed their light around, and send us more communications. Write for your paper.]

BEE HIVES.

To enable the bee-keeper to make the best of the few stocks he may have to manage after the great mortality of the past winter, I would offer a few ideas on this, the first step to bee-keeping. A hive adapted to the wants of the bees and convenient to manage has been the study of many ingenious minds. We find the frame hive in use in the old country as early as 1845, and about that time the Langstroth Hive originated in the Eastern States. This hive being expensive, rather broad, and not deep enough, has caused many improvements on it, both in the United States and in Canada. Hives have sprung up in great numbers in all parts of the country, which makes the task of selecting the more difficult.

To assist the new beginner in selecting a hive, the following requirements are necessary.—The body of the hive should be about 12 inches square inside, and fourteen inches high, with cap to sit on to hold honey-boxes. Double-walled hives are very necessary in this changeable climate. They can be constructed by making the hive large enough to take frames 1 1/2 inches in breadth, eight of them filling the hive; making an inner wall sitting on cells at the bottom; leaving space at the sides forming hollow walls; at the rear of the hive a frame with glass closes the frames in, and a door closes up the hive. By using these folding frames you avoid all mortar or projecting frames, which require drawing at the top in order to open up the hive. A honey-board is placed on the top of the hive with holes to allow the bees to pass up into the hive. The bottom board of a hive should be made to draw easily, so as to be cleaned out at all times and ventilated when required. By the use of a frame with a wire cloth the bees can be kept in place when ventilated, and all chips falling through can be removed at any time by drawing the bottom board. In cold weather the screen is removed and all dead bees and damp that falls to the bottom board can be removed at any time through the winter.

Cobourg, May 15th, '72. B. LOSEE.

KILLING CANADA THISTLES.

SIR,—Having seen in your valuable paper a recipe for killing Canada thistles, I send you my method of destroying them.—In the spring of 1867 I seeded down with clover a piece of ground where there was a large bed of these

thistles, and on the last of June of the next year I cut the clover. I let it grow a second crop, and cut it again about the 15th of September, and it completely killed them all, for I have not seen the least sign of any thistles since. JACKSON FOSTER. Uppingdon, May 14th, 1872.

DRAINAGE IN ENGLAND.

Drainage is of such vast import that no farmer can work to advantage unless this operation is fully and well done. It requires the most careful supervision and attention in all its details; for should drainage be imperfectly done, 'tis worse for the land than if it had not been drained—for imperfect work destroys the natural leakage that has been going on for generations. When 'tis necessary to operate, the first consideration should be the nature of the sub-soil, and whether intended for permanent pasture or arable. If for the latter, and the subsoil should be of a strong clay tendency, the depth should not be less than four feet, and not more than twenty-one feet apart from drain to drain; on more porous soils, both the depth and width should be increased, and in some instances a single drain will sufficiently dry a whole field. This is the case where a single spring exists and the residue of the land of a dry nature; but my experience is that drainage does great good in the most apparently dry subsoils, even should no water ever lodge on such land. I have known sandy land in England always foul and rough with couch grass—which is the arable farmer's greatest enemy—till one or two very deep drains have been inserted, and where even at the depth of ten feet no water was visible, still the subsoil, if held in the hand a short time would leave moisture upon it. After drainage the couch grass would entirely disappear in two years. The next important thing is the size of the drain tile. The pipe should always be of such dimensions that never more than half should fill with water and the other half remain for the dimensions of air, for should the drain-pipe become quite filled with water, and no air admitted, it can never operate, but will become stagnant in the soil. The drains, when freshly cut and the pipe properly placed, should remain for a week or two, so as to enable the subsoil to become thoroughly pulverized, and should always be replaced in the drain in a dry state. The drainage will at once act upon the land. Whereas, if the sub-soil should be replaced in the drain in a raw or fresh state, it will take two years before action takes place. I have drained some thousands of acres in England—soils of all descriptions—and I found by experience that it was impossible to drain too deep. The average price per acre on one large estate was from £5 to £8 completed. The work was generally executed by piece or task-work, the men earning good wages; and as the winter season is the best time to operate, gentlemen requiring draining to be done cannot better employ their capital than giving such kind of work to the laborer during inclement weather when little else can be done.

WHAT AN AMATEUR EDITOR KNOWS ABOUT FARMING.

Mr. C. W. Fav, of the Trenton Sentinel, is after Greeley's agricultural laurels. Here is a sample of what he knows about it:

The proper time to pull hemp is any Friday that a good judge may select. Castor oil beans succeed best in the bowels of the earth. They will soon work their way out. The best preparation for hops is a toad or two in each hill. They will make the vines fairly jump. The usual time to put in rye is early in the morning. Some bus'andmen, especially those in the city, continue to run it in at intervals of half an hour until bedtime. The practice is only allowable in case of a dry season. In reaping wheat never take it by the beard. It is found to be healthy food. It is apt to creak upon the stomach. Corn in the ear is apt to effect the hearing. If eaten green it will make the voice husky. When dealt out as army rations the kernel should always be served first and then the men privately.

Never plant your potatoes early. It is the early potato that gets the worm. To be certain of the right kind of squashes, compare them with your head. In adopting this rule I first mistook pumpkins for squashes, but by continued comparison, I soon learned to detect the difference. But for some new beginners it requires great caution. In making cider out of apples I found it a pretty tight squeeze, notwithstanding my long connection with the press. 'Never drink cider made from crab apples. It is pretty certain to "go back on you." If you would lay in a supply of old wine be sure to make it of older berries.

BIG VEGETABLES.—It is a common mistake of inexperienced people to consider size as the most important of all qualities, alike in flowers, fruits, and vegetables. Within certain limits, size is undoubtedly of importance, but the instant we favour size at the expense of colour or flavour in vegetables or fruit we encourage retrogression, and voluntarily surrender some of the greatest advantages that have been secured by painstaking cross-breeding and discriminative selection. It is quite a common occurrence for editors of horticultural papers to be invited to admire gigantic rhubarb, and celery, colossal asparagus and cabbages, remarkable only for their coarseness. That they denounce the overgrown samples and express their pity for the cultivators who have wasted their time in producing them, is not surprising, and is the more desirable because of the prevalence of an injurious belief in "big things" that for all their ostensible uses are absolutely worthless. Great cauliflowers are usually as rank in flavour as they are ugly in appearance. Very large celery is usually hollow, stringy, and flavourless. Good flavour, tenderness, and beauty of appearance are three most important qualities, and should be sought in preference to size, although, as remarked above, when certain limitations are recognised, every advance in the size of any particular vegetable is an advantage. In any and every case quality should be sought for first, and, as a rule, of two sorts equal in quality the largest must have the preference. This subject is to be considered in connexion with cultivating as well as in the purchase of seeds. The ambition to grow large cucumbers causes many an amateur to cut for his table, or his friends, coarse fruits of great size that are simply tough, bitter, and unwholesome, instead of smaller fruits of tender texture and delicious flavor, and perfect wholesomeness. Nearly all the vegetable marrows in cultivation are too large. The largest beet roots are much more suitable for the pig trough than the salad bowl. We have frequently advised the cultivation of the smallest in preference to the largest sorts of cabbage, because of their superior elegance and delicacy of flavor. The largest onions are the worst keepers.—The Gardeners Magazine.

WHAT RATS WILL DO.—Farmers who have large amounts of corn do not realize what quantities rats will take away to their nests and storing places. Thousands of bushels are annually consumed by the pests, and as it is the small drainages usually which take off the profit of farming, the matter of securely storing corn should be attended to. An exchange gives an account of the works of rats in a hard-ware store, from which something of an estimate can be made. Forty-five pounds of choice pop-corn were left in a box on the floor in the centre of the store. Next morning the box was nearly empty, and upon examination it was found that during the night the rats conveyed off thirty one and two-thirds pounds of the corn, and concealed it in three different parts of the building. About ten pounds were taken through a small hole in the door, between the store and the warehouse, some of which was concealed under the stairs in that part of the building, while four pounds were carried up the stairs—composed of twelve steps—and hid away in a pile of paper rags lying on the floor of the second story of the warehouse. The rats evidently worked faithfully all night, and no doubt chuckled hugely next day over the princely supply of corn laid next for the winter's use.

From St. John's, New Brunswick, the reports for the last winter speak favorably of the results of the lumbering for the past winter, and milkmen report that their prospects are better than they have been for the past ten years. There are immense quantities of logs on the lakes and rivers, and a prospect of plenty of water to bring them to their destination. This fact, with the high prices in the lumber markets at home, must make the year's lumbering operations profitable to those engaged in the market.

A farmer in Westminster offered for sale in the London market a few days since some seed potatoes: Early Rose, Bresser's Prolific, and Climax. From four pounds of each of the above varieties he states he had two barrels. He found a ready sale for them at good prices. Potatoes of old and less-prized varieties were at the same time sold at low rates.—He got his seed from the Emporium at what he thought high prices.

OPINIONS.

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badly wintering; how drifting, the fields, in We have colts on my past winter, straw with a and let run going to winter; which came they began to up them in the now, any of new to me.

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NOVICES. with are not to interfere with the lampers are a little cooling and soft diet.—urified.]

SEEDS. of the seeds I King of the s. of beautiful bee's Prolific did are twice cut off ed about three and excellent.— ushed, produced gravely land. h. I am taking r is almost more t intend to give y every suc- Geo. Dobson.

our potato plants the most useful es that could be potatoes what the an indispensable a farmer has any plement, in fact, y for themselves DEAN TIFFANT.

FARMER'S ADVOCATE.

Light Brahma Fowls.

ORIGIN OF DOMESTICATED FOWLS.

There are good reasons for believing that all breeds of the fowl are descended from one wild species, though as the period of domestication reaches so far back their early history is involved in obscurity.—Nothing being known directly and certainly, we can only rely upon circumstantial evidence which on the whole points out the wild "Gallus Bankiva," of India, as the parent stock of all domesticated races, however diverse they may be in present character. Therefore, according to the careful and laborious investigations of naturalists, Cochins, Brahmans, Hamburgs, Polands, Games, Bantams, and all other breeds of fowls have their source in a common ancestry.

ORIGIN OF THE BRAHMAS.

The two breeds now called Brahmans were founded in the United States upon stock brought from the port of Luckipoor, upon the Brahma Pootra river in India, and landed in New York in September, 1846. The Light Brahma is then by immediate origin an American breed, but by remote descent an Asiatic. There is no sufficient evidence to show that the specimens imported were anything more or less than Indian dunghill fowls. The term blooded or thorough bred could not be applied to them on their arrival here, any more than to the common fowls of this country. The Brahmans have been "worked up" and made over upon our own soil, within twenty-five years, till they breed true in external appearance, and are, therefore, entitled to be called a breed.

VALUE OF THE BREED.

The Brahmans, either light or dark, are, on the whole, the most valuable breed of fowls in the world. True, a number of non-sitting races rival them as layers, but they can never be kept so universally, because requiring the addition of a sitting breed in order that they may be perpetuated, and ordinarily families do not want to be obliged to keep more than one sort. But Brahmans are suited to everybody's wants. They excel non-sitters in size, and weighty chickens for the table are considered an object in most cases. They are more easily induced to lay in winter when eggs are scarce and high than any of the non-sitting breeds. No other race of fowls will produce as great a value of eggs in a year, the value and the number of eggs being two different matters. They are more docile and good natured than any other breed, excepting their congeners the Cochins. Most breeds are liable to get into a flutter or panic at any little fright, but the Brahmans are so quiet and tame that there is a real satisfaction in their management. There is no breed so well calculated for pets, and amateurs who would make friends with their birds cannot do better than to choose the Brahmans, either light or dark. Save in color there is very little difference between the two breeds. It is of late claimed that the dark variety are a little smaller bodied, and that the cocks before maturity are less gaunt, but the superiority is not very obvious. Brahmans lay at an early age, if fed plentifully, and given a liberal allowance of animal food. Cold has little effect upon this breed, and they endure a winter in Canada or the Northern States better, or at least as well as the common barnyard breeds, which is saying a great deal. The most valuable trait about them is, however, not their capacity to endure cold merely, but their wonderful strength of constitution. Brahma chicks, with any

thing like fair treatment, may be safely expected to live; and we believe there is no breed whatever that can excel them in this respect.

FAILINGS OF BRAHMAS.

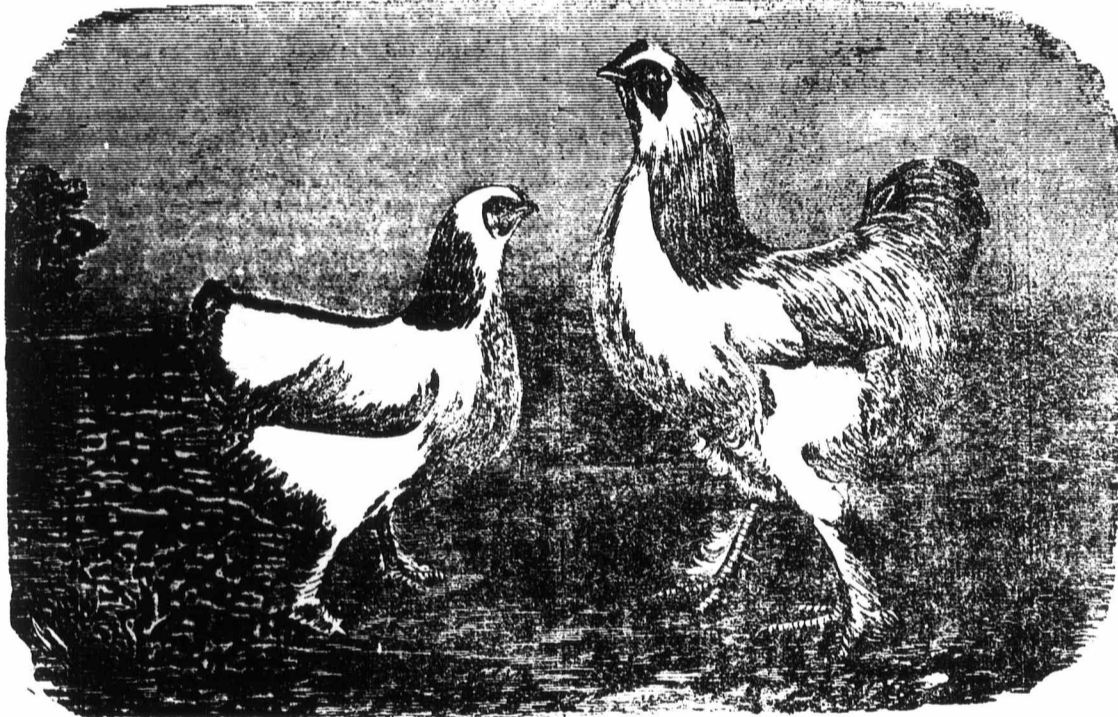
There is no breed that is perfect. It is urged against the Brahmans that they are too much inclined to sit. It is true that they are very troublesome in this respect, especially in warm weather. And the ordinary expedients for breaking up the desire will not avail in their case. If a hen is cooped up by herself after the fit is confirmed, she will sit anywhere, whether she can find eggs to cover or not; and if a nest is not accessible, she will take to a corner upon the ground, or a bare board. Confinement with strange hens, or with a cock, is the only thing that will cure some individuals. Another fault of the breed is, that they are great eaters. But they have a vigorous digestion, and that sort of plump build that in animals of all species signifies a tendency to render a good return in flesh for what is consumed. If their appetite accompanied a frame too big to be proportioned to their flesh, they might be set down as "hard to keep," a designation applicable to some horses and cattle. But a well bred Brahma, when mature, is not a rangy, gaunt creature, but

it not been for the interest of this class, in fowls, we should not have the Brahma. But when a breed is raised to a certain pitch of merit, and its points are become fixed by persistent selection, it is time for practical men to step forward and rescue it before it is sacrificed to whim and fashion.

DISQUALIFICATIONS IN BRAHMAS.

Birds not matching in the pen, combs not uniform in the pen or falling over to one side, crooked backs, twisted feathers in wing, legs not feathered to the tips of the outer toes, vulture hocks a disqualification in Light Brahmans, and objectionable in Dark Brahmans, not a disqualification; legs of any other color except yellow or dusky yellow.

[We imported a fine pair of this species last season. Mr. J. Plummer, of this city, was so pleased with them that he purchased them. We have since procured eggs from him, and have had chickens raised, and this year we have sold some eggs and still could do so, but as the season is advancing, perhaps our readers would rather procure the birds in the fall of the year, or eggs next spring. In reality, the birds do not belong to your humble servant; but our 4th son John has invested his earnings in poultry and



LIGHT BRAHMANS.

full breasted, broad backed, and inclined to take on fat. In justice, however, no rotundity whatever can be claimed for a Brahma chicken, especially a cockerel when four or five months old. When they are of an age suitable for the gridiron, that is, when they reach two and a half or three pounds, live weight, their shape is better than when some weeks old, when they will be past the age at which they appear so leggy and ugly, and will begin to acquire considerable breast, and depth of body.

EFFECTS OF IN-BREEDING.

It is the remarkable vigor and stamina of the Brahmans that enables them to resist so well that curse of the fancier's work, close breeding. We hope that intelligent, practical men enough may be found, with minds bent on raising cheaply healthful food for the million, so that this valuable breed may be rescued from the ruin that sooner or later overtakes all races of fowls, kept in the hands of those who breed for fancy to the neglect of utility. A few petty profits may be gleaned by dealers in exhibition fowls, and vanity may be tickled by prizes at shows, but the masses of the people know and care nothing about such things. We advocate a management that shall place more and better eggs and chickens on the poor man's table. We do not ignore the value of the fancier's work either, for had

been. We know you all wish him success in that line. You can communicate with Johnny on the poultry question.]

Miscellaneous Items.

A WATER SPOUT.

During a terrific rain storm which passed over north-western Iowa and Dakota on the night of May 15th, a large water spout descended to the earth, striking a few miles from White Swan, Dakota, covering the earth for a great distance around with water to the depth of 8 to 30 feet. Fortunately it did not strike in the vicinity of any settlement, and no person was injured, but considerable stock was lost.

CONSUMPTION OF EGGS.—The receipts in New York city for nine months of 1871 averaged one thousand barrels per day. A barrel of eggs contains about eighty dozen; the aggregate, therefore, was in one day nearly a million. One thousand barrels of eggs at an average price of 30 cents per dozen amounts to \$24,000 per day, or \$8,790,000 per annum. In this amount there is no estimate made of the number of cases of eggs received per day. From two to ten of these cases are sometimes received per day by one firm, each case containing seventy-two dozen eggs.

BEAN SOUP.—Wash the beans and boil them with salt pork. When soft, take them out, and pass through the colander. Then put them back in the same water they were boiled in, with four hard boiled eggs, cut in quarters, and a lemon sliced, and a little pepper if you like it. Boil again, and serve. This soup is very nice.

SICK HEADACHE.

Those who have ever had this distressing complaint need no description of it. Its attacks are often so sudden and severe as to make one helpless for a while. If possible, put the feet in a warm bath (coming well up the limbs), to which two teaspoonfuls of clean wood ashes have been added. But this cannot always be done, as the person may be away from home at the time of the attack, or have no one to wait upon him or her, and be too sick to wait on themselves. But a remedy may be kept on hand, that has always eased me when I have tried it: it may be carried in the pocket, so that if attacked from home, as one often is, by taking it, one may soon be relieved. This remedy is honest blossoms, and I take them in this way:—Take what would make, when pressed together, a bunch as large as a chestnut; put it in the mouth and chew, wallowing the juice: as the bile begins to circulate in the stomach a sort of chill is often felt, and the excess of blood circulates from the head to other parts of the system.

I suppose I need not give a description of this plant, as it is so generally known, though often called by different names. Bonaset, or Thoroughwort, is called *Eupatorium perfoliatum*. The whole plant is medicinal, though for headache I use only the blossoms, which appear in August; and I prefer them before they fully blossom as they are not so easily rubbed off and wasted. It grows in wet pastures, and should be gathered when well budded for blooming, or about the first of August. It may be tied in bunches and hung up out of the way, where it will keep clean and dry.

SCARLET FEVER.—Rub all

over, often, with bacon rind. Soak a piece in white lye, and put around the neck; let the patient drink freely of cold water, and keep from the cold air, but give fresh air. Wash often with saleratus water, and let the patient drink it. This treatment has been very successful.

THE BEST BUTTER.—It has been proved that cows make the richest butter when they first go out to pasture in the spring; that they produce the hardest butter when fed on dry food; that butter made during the fall is best for keeping. The town of Rennes, in Brittany, is noted for its peculiar butter; the milk of the previous evening is mixed with the warm morning's milk, and the mixture allowed to stand for two or three hours, when the whole is churned. Those who practise this plan claim that they thereby obtain a larger amount of butter of a more delicate flavor.

CABBAGE LOUSE.—The *American Agriculturist* pronounces as the best remedy for the ravages of this pest of the garden, lime slacked dry with water, in which carbolic acid has been dissolved, one part, and dry air-slacked lime, three parts; mix together and sprinkle on the leaves, while wet with dew. When they are very numerous on a leaf it is better to remove it and destroy the insects by burning.

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NEW YORK.—The *Tribune* is hunting up another of the New York grievances: "Several weeks' careful enquiry by our reporters, accompanied in their investigations by public officers, and a thorough analysis by scientific chemists, have established beyond any sort of doubt that the milk trade of this city, as conducted by the middlemen who serve families there-with, is one monstrous and flagrant swindle. More than 75,000 quarts of water are daily sold as adulteration in our milk, at a positive loss of nearly, if not quite, \$10,000 a day, and at an incalculable cost of health and life.

COTTAGE CHEESE.—Boil two chickens till tender, take out all the bones, and chop the meat fine, season to your taste with salt, pepper and butter, pour in enough of the liquid they were boiled in to make it moist, put into whatever mould you wish, and when cold turn out and cut into slices. It is excellent.

RAIN AT ALBANY.—A heavy rain storm lasting 36 hours occurred at Albany last week. It is the first storm of the kind in many months.

WHEAT FLOUR.—This matter of making flour of the whole wheat, is well understood and approved by every school of physicians, and through their recommendation to their patients, and the teachings of health journals, its use is becoming somewhat common, and wheat flour, as it is called, is a staple article in the markets. Strong as the prejudice may be at first against the brown, plebeian-looking loaf, it will vanish, in most cases, at the first taste, if the bread is well made from well-ground wheat of good quality—the sweet, fragrant, nutty flavor commending itself to every taste wholly vitiated. With wheat flour the common ailments of heavy, sour and insipid bread would vanish forever, as it is so light, owing to the feathery particles of the hull which pervade it, that no yeast or alkali is necessary to raise it, but it is, when mixed with pure cold water alone, absolutely self-rising to a greater extent than fine flour can be rendered by yeast.—*American Farmer*.

WASHING FLANNEL.—Do all house-keepers know that flannel should never be rubbed on a board, but as loosely as possible in the hands? The harder it is rubbed the more the dirt works in instead of out. Flannel should be rinsed and washed in warm water and dried where the wind will not strike it much. Any one following the above directions need have no trouble about the flannel shrinking.

DOGS AND HYDROPHOBIA.

Scarcely a week passes but that we see reported in the daily papers one or more deaths from that horrible disease, hydrophobia. Dogs are a gigantic and alarming nuisance to the nation's community. Why I ask, in the name of humanity, are so many worse-than-unnecessary dogs kept? There ought to be a national dog law, fixing the tax on dog owners at \$25 per year for each and every dog. This would be the most efficacious remedy for hydrophobia. "An ounce of prevention is worth an hundred pounds of cure," as far as this dreadful disease is concerned. Any one who has ever witnessed the death of a person from hydrophobia will desire never again to behold so distressing a scene. Children at play in the street; a mad dog, foaming at the mouth, rushes through the street, biting six or eight children. In the course of two or three weeks, or, perhaps, not for months, one or more of these children are attacked with the awful symptoms, and no medical aid can save them. Imagine the anxiety of the parents of the other children who were bitten by the same dog. Editors of news papers, and other writers, ought to make war upon dogs, and agitate the question until laws are made that will put nine-tenths of these dangerous and useless curs out of existence.

Dianthus.

A splendid genus of the most beautiful annuals grown—so Vick, the great American florist, says. To this genus belong some of the best known and generally esteemed of our early favorites of the flower garden—the Sweet William, the Pink and the Picotee. They do not flower till the second year. That gem, the Indian Pink, is also of the genus *Dianthus*; and among the most brilliant of the flowers of the garden is the *Dianthus Heddewigii* given below. The seed may be sown in spring, under glass, or in a seed bed, from which they are easily transplanted. They flower freely during the summer. If by pruning they are checked from flowering too freely the first season they usually bear the winter well, and make beautiful plants the second season. Seeds sown late in the spring will produce strong, good plants for flowering the following spring.

SCABIOSA, (*Mourning Bride*).—This, of which also we present you with a wood cut, is a very pretty class of annuals, suitable for the flower garden, and for bouquets. They are of almost every shade and hue. The tall varieties grow to the height of about two feet; the dwarf, one foot. The seed may be sown in a rich, well-prepared border, early in the spring, or the flowers may be had earlier by sowing in a frame. Plants often live through the winter, and flower well the second year.



DIANTHUS.



SCABIOSA.

We hope that all our fair readers and we know that the farmers' wives and daughters like to read the *ADVOCATE* and a delight in adding to the pleasure of their homes by a pretty little flower garden. We know the ladies love to do all the labour of the flower garden themselves. As much as their time may be occupied otherwise, we have often looked on with pleasure while they handled the spade and rake quite dexterously, and sowed the tiny seed and nurtured the tender plant. Well they know how much is added to the picturesqueness of a neat little cottage, or to a house of more pretensions, by a flower bed or border, in all the beauty and fragrance of a summer evening, when the dew is resting amid their bright coronets. And as the neatly trained creeper half shades the window, and with its refreshing hues and fragrance repays the care of the fair cultivator, and the bees, and perchance that winged gem, the humming bird, nestles for a moment among its slender boughs, she rejoices in the reward of her pleasant toil.

The most lowly cottage, and seemingly worthless little patch of ground, may be, and sometimes is, made a place of beauty. There is an old, little log house that we have often admired. It has stood for more than thirty winters. A bank of earth has been raised nearly two feet against the log walls, to give greater warmth to the house. On this embankment have been planted shrubs and creeping plants—grape vines and others, and

the old log walls are entirely wreathed with foliage and flowers. A lovely little flower garden lies in front of the cozy old cottage. A tasteful rustic arbour, festooned with vines, affords a pleasant summer retreat during the heat of the day. Inside every inch is as neat and elegant as the hands of its aged occupants can make it. In the branches of the shade trees the birds have a secure home, and the busy bee hums cheerily as from every blossom she collects her luscious food for the winter.

Ladies, plant the flowers in every available spot: sow the flower seeds. The first favorable opinion of the fair dwellers in a house is often formed by strangers from the care taken of the little ground around the house. Where the flower ground is trim and neat, where beautiful flowers are in the window, and the trellis rose or vine twines its tendrils around its support beneath the cottage eaves, we are at once prepossessed in favor of the fair occupants.

TOP DRESSING FOR CORN OR POTATOES.—A correspondent of the *Michigan Farmer* sends the following receipt for a top dressing for corn or potatoes to be applied as soon as the planting is over:—A bushel of ground bone meal, scattered over about 10 inches of ground, one teacupful to a hill, viz.:—A-hes 10 bushels, per 100 lbs. salt 2 bushels, and lime 1 barrel. This would suffice for a large crop. The ingredients are all good, and any one may easily make a trial of the mixture on a much smaller scale, by using a tenth of the mixtures.

Miscellaneous Items.

MILITIA.—It has been determined by the authorities to increase the ration allowance to the men when in camp next June. The horse allowance will likewise be increased from 75c. to \$1, and the arrangements provided for target practice and musketry instruction are such as it is hoped will give satisfaction and tend to increase the efficiency of the men.

PLANTING TREES IN ENGLAND.—In England there are about 40,000 acres of young oaks and other growing timber planted in enclosures by the authority of Parliament, of which 10,000 were planted last year.

THE increase of the trade between Montreal and the Clyde has during the past few years been very great. During the season of 1871 the despatches of vessels from the Clyde showed an increase of 13,500 tons over that of 1870, and of 30,000 over that of 1869, while the arrivals from Montreal during the same period showed respectively an increase over the two previous years of 15,000 and 22,000 tons. In 1866 the arrivals in the Clyde from Montreal were only 34 vessels, of 27,200 tons aggregate burden. This amount has more than tripled during the past five years, and everything promises fair to have more than the same thing said for the five years next to come.

We are glad to learn that the Intercolonial Railway in New Brunswick and Nova Scotia is well advanced towards completion. A new project for an improved water communication between New Brunswick and Quebec, is mooted. The design, we believe, is to connect Fredericton via St. John with the St. Lawrence at Pook's Pastures. There will be very little dredging or canal work required, there being water way nearly the whole distance. The surveyor's report will be published shortly. The Pook's Pasture Canal is estimated to cost four millions of dollars.

ORILLIA AND MATCHEDASH.—The number of acres now owned in the United Townships of Orillia and Matchedash is 3,025 more than last year. The cleared land in Matchedash is 80 acres more; 468 more in North Orillia, and 199 more in South Orillia. The total value of Real Property is now \$1,200 more in Matchedash, \$20,100 more in North Orillia and \$10,985 in South Orillia. The value of personal property remains about the same. The total increase of desirable resident property in the townships is therefore \$32,955; this includes \$1000 of Railways. As regards non-resident property there are 2185 acres less, but \$15,840 more of value, or an increase of one-third. The population of the townships has increased by 173; there are 274 more cattle, 122 more sheep; 56 fewer stags, and 64 more horses. The number on the Roll being over 500, a Deputy Reeve may be appointed.

RAINS AT OTTAWA.—The rains have extinguished the bush fires, and have done vast good to the farms which were partially parched. The lumbermen say that it will take a week's steady rain to raise the streams to the height necessary to facilitate the driving of timbers. The supply of logs is at least one-third of last year's supply, so far.

REMEDY FOR CHILBLAINS.—Take a six-ounce phial to the drug store; put in it one ounce nitric acid, one-half ounce muriatic acid, and four ounces rain water. Make a little swab, and use it night and morning, wetting the part affected.

In whitewashing the cellar or dairy if an ounce of carbolic acid be added to each gallon of wash, it will prevent mould and the disagreeable taints often perceived in meat and milk from damp apartments. Another great advantage in the use of carbolic acid in paste for wall paper and in whitewash is that it will drive away cockroaches and other insect pests. The cheapest and best form of carbolic acid in crystals, are those which dissolve in water at an excess of temperature.

RECIPE.—N. Williams, in the *Rural New Yorker*, thus writes:—"To one drachm of iodine of potash add one pint of cold water and take a desiccated spoonful of the solution three times a day. Bathe the parts affected with a strong decoction of vinegar, saltpetre and red pepper, steeped together. It is better if applied warm. If practicable, wrap the affected parts in a red flannel cloth saturated with the above."

THE BEST HAIR RESTORER.—Make a strong tea (say a pint of each) of red sassafras and sage; pour them into a quart bottle, and saturate the hair thoroughly two or three times a day, using a stiff brush. The more you use the brush the better. If the hair is harsh put a spoonful of hickory nut oil (which can be obtained by pressing the kernels in a vice) into the bottle. I know the above is good, for I have seen it tried on an old lady's head whose hair had fallen off from sick and nervous headache, till she was entirely bald. In about three months a coat of hair as soft and fine as an infant's appeared.—*E. Guthrie, in R.N.Y.*

REMEDY FOR HOARSENESS.—I cured my child, who had hoarseness for three months, in this way:—Took four ounces fresh grated horseradish, put one pint of vinegar on it, let it stand twelve hours; then put it on the fire, covered tightly, to prevent the strength going off with the steam; strained, and added a teacup full of honey. It was then ready for use. Bottled tight. I think it excellent for all kinds of coughs.—*Es.*

and boil take them der. Then they were cut and a little and serve.

distressing of it. Its severe as to If possible, coming well spoonfuls added. But the person time of the upon him or themselves. hand, that ve tried it: t, so that if often is, by eved. This and I take would make, h as large as h and chew, ile begins to e stomach a often felt, and od circulates o other parts

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VER.—Rub all th bacon rind, in white lye, et the patient and keep from r. Wash often at the patient has been very

as been proved t butter when in the spring; est butter when er made during The town of d for its pecu- previous even- arm morning's ed to stand for the whole is tise this plan obtain a larger delicate flavor.

American Agri- the best remedy of the garden, er, in which car- veld, one part, three parts; mix the leaves, while ey are very nu- to remove it burning.

Stock.

STOCK GRAZING ON THE PLAINS AROUND THE ROCKY MOUNTAINS.

Those of us who are familiar only with the habits of stock on the small farms in the States, and have never had the opportunity of studying their dispositions and ways when left to themselves in large herds in the open country, form most erroneous notions of their wants, their inclinations, their capacities, and their modes of living. Accustomed to be cared for and have their wants supplied on the farm, they learn to look for protection, and depend on their owners for food and comfort. They acquire artificial habits, and lose something of their natural sagacity and hardihood. And we are apt to suppose that they require assistance under all circumstances; because they have learned to depend on it in the confined life they lead under the fences and buildings of a small farm. But let them grow up by themselves and take care of themselves, and they ask no more favor from the hand of man than the deer or the buffalo. "To be let alone" is the extent of their petition. They know better than any one can tell them where the richest food is to be found, and will walk many miles to get it. They know where the clear sweet water is, and will not stray so far from it as to suffer from thirst. They can always find the warm, sheltered nooks where the winds and the storms will not harm them. Obviously, then, the first lesson the grazer must learn in coming here, is to let his stock take care of themselves. There must be some limit to this remark of course. Stock must be kept on its range, and different herds kept separate in some measure. But even that amount of interference will be an injury, and in no case can it benefit the individual animal. The hardest lesson, however, for Eastern men to learn, and the most difficult one to understand, is this, that feeding hay to stock in winter is a positive injury, and will insure an actual loss of more cattle than will die without such feeding. Strange as it may seem, this has been proven over and over again. As soon as the cattle learn that they can get a meal at the hay stacks, they refuse to leave them, and gradually give up all attempts to graze. They trample on and waste much of the hay that is given them, and never thrive as well when fed, as when grazing. Do the best you can for them, they invariably fall off in condition, and in the spring, when the grass is starting, many of them will die, that would have done well if left entirely to themselves. It must be remembered that this is not a natural hay country, and large quantities are not easily obtained; that our herds number several thousand each, and that to feed more than a few weeks, during the roughest of the weather, is out of the question; and the grazing is always abundant, unless it may be partially covered with snow. Our snow is almost always dry and light, however, and it is not unusual to see cattle grazing through it where it is up to their eyes.

CARE OF CALVES.

A celebrated Irish farmer gives this advice to those who are young in this business:—"As a breeder you must be careful not to lose calf-flesh. If you do so by starving the animal at any time of his growth, you lose the cream—the covering of flesh so much prized by all our butchers. Where do all those scraggy, bad-fed beasts come from that we readily in our markets, and what is the cause of their scragginess? It is because they have been stinted and starved at some period of their growth. If the calf-flesh is once lost it can never be regained." The above remarks are quite as applicable if the calves are raised on the farm as when intended for the butcher. Calves can be raised by the hand and make as rapid growth as when allowed to run with their mothers. One gallon of skim milk moderately thickened with middlings, and when eggs are plenty, one or two broken into it, is enough for a food in quantity, and will keep a calf in growing order and with a smooth coat.

EFFECTS OF SHELTER.

An experiment made in England shows that one hundred sheep fed under shelter, on 20 pounds of Swedish turnips each per day, at the end of a few weeks had gained three lbs. each more than another hundred which were fed 20 lbs. of the same kind of turnips each, but in the open air or field. Five sheep were fed in the open air in November, the temperature being at 44 degrees; they consumed 90 lbs. of food per day, and at the end of ten days they weighed two pounds less than when first exposed. Five other sheep were then placed in a shed, the temperature being 49 degrees; at first they consumed 82 pounds per day, and at the end of the same time they had gained 23 lbs. This is proof sufficient of the advantages of sheltering stock in winter.

MONTHLY CATTLE FAIRS.

Although we have previously given the list of the established Monthly Cattle Fairs, applications are still made to us for the dates; we therefore quote the list again with additions, as follows:—

- Guelph—First Wednesday in each month.
- Harriston—Friday before Guelph Fair.
- Bosworth—Saturday before Guelph Fair.
- Elora—The day before Guelph Fair.
- Drayton—The day before Elora Fair.
- Clifford—Thursday before Guelph Fair.
- Teviotdale—Friday before Guelph Fair.
- Listowel—First Friday after Guelph Fair.
- New Hamburg—First Tuesday in each month.
- Stratford—First Thursday in each month.
- Berlin—First Thursday in each month.
- Elmira—Second Monday in each month.
- Waterloo—Second Tuesday in each month.
- Mount Forest—Third Wednesday in each month.
- Durham—Tuesday preceding the above.
- Fergus—Thursday following Mt. Bridges.
- Orangeville—Second Thursday in January.
- March, May, July, September, and November.
- Mono Mills—Third Wednesday in January, April, July and October.
- Erin—First Monday in January, April, July and October.
- Masonville—First Tuesday in February, May, August and November.

Horticultural.

STRAWBERRY GROWING.

In reply to the enquiry of a subscriber, we give the following advice on Strawberry growing:—

First. Let your soil be suitable; a deep sandy or gravelly loam is best; some prefer clay, but it requires more labor; but any soil, well cultivated, and not too wet, will do. A suitable soil, well manured and thoroughly tilled, will give the best returns for your outlay.

Plow the land in the fall and prepare a compost of manure and peat to be thoroughly worked over before the time of planting. Put about ten loads of this compost to the acre. In April, if the ground be in good order, plough or dig this manure into the soil. Harrow well, and prepare the ground so that no water will lie on it.

Having your plants prepared, with the roots well pruned and kept moist, stretch your line along the ground, the rows at such a distance apart as to allow cultivation between them, varying from 2 to 3 feet, less or more. Open a drill neatly along the line, deep enough to allow the plants to be set so that they will not be under the surface, nor raised above it. Press the earth gently to the root of the plant. Keep the earth stirred from time to time as much as needed. Keeping the earth fresh has the effect of fertilizing it, besides keeping it free from weeds. You may allow two runners from each plant to remain and take root. If you allow more, it will interfere with their fruitfulness, and with the facility of keeping the soil in good tilth.

For hardiness and good produce, and safe keeping in carriage, we would recommend the Wilson strawberry. These are objects of consideration to the cultivator; though other varieties are of finer flavor.

To preserve strawberry plants in winter.—Cover them with straw, before the heat has quite left the ground, nearly one inch deep, or with stable litter. We have used for the purpose leaves raked up in the woods. There is, perhaps, no better covering for plants in the winter. It serves as a manure, becoming a vegetable mould, but it is apt to be blown off, unless kept on by branches strewn over. A cultivator of strawberries sows oats in the fall, between the rows. This is killed by the frost and falls on the ground, giving to the plants sufficient protection.

RINGWORM REMEDY.—Take one half teaspoonful of pulverized gunpowder, one half as much lard, mix well together. Apply once.

The Household.

HYGIENIC TREATMENT OF SMALL-POX.

Dr. Trall, who has some reputation as a writer on hygiene and hydropathy, writes the following letter to the Philadelphia Evening Star in view of the fact that small pox was very prevalent in that city, and it was afterwards copied in the Health Reformer. This statement that he never lost a patient from this cause, or had one scarred or marked by pitting, renders his letter worthy of attentive consideration.

"Anciently, small-pox was treated with heating appliances, stimulants, sudorifics, warm rooms, abundant bedding, etc., on the theory that by such means 'nature' would be assisted in the work of purification. This practice was very fatal, the majority of the patients so treated being lost. Physicians then went to the opposite extreme, adopted the 'cold regimen,' and gave antiphlogistic medicines. This was the lesser of two evils, but still the mortality was great. The treatment usually prescribed at the present time by 'regular' physicians is intended to be a compromise of the two plans; it may be termed the 'alterative' method, and the average mortality is about one in five.

"It seems to me that a common-sense view of the nature and cause of the malady will at once suggest the proper treatment. Whatever may be the character of the virus, or contagion which causes small-pox, the disease itself is, obviously enough, an effort of the vital organism to purify itself by expelling the noxious matter through the surface of the body. If this process is successful, the patient will recover; if not, he will either die at the crisis, or become a chronic invalid. Whatever, therefore, favors this remedial effort is useful; and whatever retards or prevents it is injurious.

"Can medicines of any kind assist this process? I say, No. Why? If they are stimulants, they aggravate the fever. If depletants, they determine the process of depuration from the external skin to the internal mucous membranes. If alteratives, as the mercurials, they induce local inflammation, and endanger the whole living machinery.

"Now, the hygienic or rational plan of treatment is as simple as it is sensible and successful. It consists in keeping the external temperature of every part of the body as nearly as possible to the normal standard. This rule of practice is universal and infallible, and applies to all forms and stages of the disease, and all conditions of the patient, nor need there be any difficulty in carrying it out. All that is needed is water of a proper temperature—warm, tepid, cool, or cold, applied in the form of ablu-tion as often as may be necessary.

"A single consideration is enough to show the propriety of this treatment. The patient's life depends on the successful expulsion of the small-pox virus through the skin. It cannot be done through any other emunctory. If the surface is either too hot or too cold, depuration is arrested, and the virus retained. If the capillary vessels of the skin are constricted by the cold, the virus is either retained in the blood, disorganizing the vital fluid, or it is deposited in the internal viscera, destroying them. And if the vessels of the skin are over-dilated by heat, the virus is retained there, inflaming and crusting the cutaneous structure, as is seen in the emunctory or malignant form.

"If, however, the temperature is maintained about the normal standard, the circulation of the blood is constantly balanced, and congestion, the immediate cause of all danger, is prevented or removed. Neither the internal organs nor the skin is so overloaded with accumulated blood as to be unable to perform their functional part in the process of elimination, and the remedial action goes on successfully everywhere in the organism. The principal mortality, in all febrile diseases, is owing to the medicinal or other measures which destroy the balance of circulation, inducing fatal congestion in some particular organ or part.

"I have myself treated scores of cases of small-pox, mild and malignant, hygienically, and have never lost a single case, nor has any one of my patients ever been marked or scarred by 'pitting.' During the winter of 1857, the small-pox was very prevalent in New York city, the death-rate sometimes exceeding fifty per cent. Among the students of our 'Hygienic Therapeutic College,' numbering more than fifty, were fifteen cases of small-pox. All were treated without medicines, and all recovered. Only one had the slightest pock-marks, or pitting, and that was occasioned by eating improper food during the eruption.

"One of the graduates of our school, being in the city, had the disease, and, not having convenience for hygienic treatment at his boarding house, went to the hospital on the Island, took medicine (whiskey punch principally), and died. Another graduate of our school fell into the hands of his 'friends,' who refused him to take medicine; he died also.—But no case treated in New York hygienically, during my residence there of twenty-five years, was ever lost.

"But I am not alone in this testimony. A few years ago, Dr. Snow, Health Officer of Providence, R. I., reported in the Boston

Medical and Surgical Journal, that he had treated all of the cases of small-pox which prevailed endemically in that city, without a particle of medicine, and without losing a patient.

"I could fill your paper with similar statistics, but 'enough is as good as a feast.' Of course, while ablu-tion is the only medical treatment required for small-pox, it is important that all hygienic conditions be attended to.—The apartment should be kept clean, well ventilated, as cool as the patient can bear without discomfort, and well lighted. Light and air are the best disinfectants yet discovered.

"R. T. TRALL, M. D.

"Florence Heights, N. J., Nov. 4, 1871."

[The above we transcribe from one of our exchanges. When medical advice cannot be at once obtained, it is always well to know some simple method of treating dangerous diseases. But no man in such cases should, in reliance on himself or others unskilled, delay in calling in a good physician, having his diplomas from some of the best schools.—A. S. T. Ed.]

TAKE ENOUGH SLEEP.

Said one of the oldest and most successful farmers in this State:—"I do not care to have my men get up before five or half-past five in the morning, and if they can go to bed early and sleep soundly, they will do more work than if they got up at four or half-past four." We do not believe in the eight hour law, but nevertheless, are inclined to think that, as a general rule, we work too many hours on the farm. The best man we ever had to dig ditches seldom worked when digging by the rod, more than nine hours a day. And it is so in chopping wood by the cord; the men who accomplish the most, work the fewest hours. They bring all their brain and muscle into exercise and make every blow tell. A slow, plodding Dutchman may turn a grindstone or tanning mill better than an energetic Yankee, but this kind of work is now mostly done by horse power, and the farmer needs above all else, a clear head, with all his faculties of mind and muscle light and active, and under full control. Much of course, depends on temperment; but as a rule, such men need sound sleep and plenty of it. When a boy on the farm, we are told that Napoleon needed only four hours sleep, and the old nonsense of 'five hours for a man, six hours for a woman, and seven hours for a fool,' was often quoted. But the truth is that Napoleon was enabled, in a great measure, to accomplish what he did from the facility of sleeping soundly of sleeping when he slept and working when he worked. We have sat in one of his favourite travelling carriages, and it was so arranged that he could lie down at full length, and when dashing through the country as fast as eight horses, frequently changed, could carry him, he slept soundly and when he arrived at his destination was as fresh as if he had risen from a bed of down. Let farmers, and especially farmers' boys, have plenty to eat, nothing to 'drink,' and all the sleep they can take.—N. Y. Agriculturist.

AUSTRALIAN CURE FOR SORE THROAT.

A correspondent of the Queenslander gives the following cure for sore throat:—"It cannot be too generally known that all forms of sore throat, whether simple, ulcerated, quinzy, diphtheria, scarlet fever or otherwise, can be totally or greatly alleviated by wearing a soft oil silk kerchief twice around the neck, high up and next to the skin, especially if worn at night when the pain is first felt. Not only does the silk cure the sore throat, but it prevents a recurrence of it. I was formerly a martyr to quinzy and ulcerated sore throat, and used to have a whole month of it regularly every winter, and in spite, too, of all the usual battery of pills, gargles, etc., it run its course till I tried the silk; the sore throat then took the hint and left me alone ever since as a bad customer. I invariably killed it in an hour of any attempt it made upon me; an old sore throat will take a day to cure. Mind, I do not pretend to say that the silk will cure fever or any other symptom or complication that may accompany sore throat, but this I do say, that it will cure and remove all pain and difficulty of swallowing in the throat without the aid of any local remedy, or it will do it in spite of them, if you do apply them and it both, but without it, cure comes only by nature, not physic, as far as the sore throat goes; other remedies are neither good nor harm, except as they keep you from trying the infallible silk."

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Youths' Department.

UNCLE TOM'S COLUMN.

A GAME.

THE RIVALRY—Boy seated in the middle of room.

Commences—"I'm Doctor Giltpalm, now established for life, And I want the soft smiles of a sweet little wife."

Two girls walking around him repeat: "Dr. Giltpalm has a nice little chay. Dr. Giltpalm for ever, hurrah."

The two girls seat themselves one on each side of him, drawing nearer and nearer as they speak.

Doctor—"How happy could I be with either, Were t'other dear charmer away."

1st Girl—"Sweet Doctor, I'm sure I should please you."

2nd Girl—"Sweet Doctor, I'm sure I'd obey."

1st Girl—"I can buttons sew on in a hurry."

2nd Girl—"I make the most excellent curry."

1st Girl—"I can play all Mozart's finest pieces."

2nd Girl—"I can read all your notes on diseases."

Doctor—"Oh, what a position for a learned physician."

1st Girl—"I can write your prescriptions in Latin."

2nd Girl—"I can make year cravats of black satin."

1st Girl—"I can sing all the last newest ballads."

2nd Girl—"I'm famous for French lobster salads."

Doctor—"Oh, what can I do, I can't marry two?"

1st Girl—"But you've breathed on me softest of sighs."

2nd Girl—"Oh, you know you've east on me shep's eyes."

1st Girl—"In a manner most bland you said, 'It's fine weather.'"

2nd Girl—"But you squeezed my hand so when we last were together."

Doctor—"Oh, what a position for a learned physician."

"May the college preserve us, I'm getting quite nervous."

"Oh, gentlemen, gentlemen, pity I pray."

"Oh, come to the rescue, and take me away."

Here I am again, children, ready to enjoy myself with you. I have heard from a few of you during the month, some with a story to tell, others with puzzles, and all welcome. I am going to relate to you a family conversation I heard once. The father commenced:

"Two brothers were walking together down street, and one of them stopping at a house, knocked at the door, observing, 'I have a niece here who is sick.' 'Thank goodness,' said the other, 'I have no niece.' Now, how could that be?"

"Why, it's a riddle," shouted Johnny.

"And one you will not guess in a hurry. Come, mother, solve the problem."

"But they all failed, and gave it up, so he said.

"Nothing can be simpler than my question. 'I've got a niece that is sick,' says one brother. 'Thank goodness, I have not got a niece,' says the other. How can that be? You all give it up? Well, the invalid was his daughter."

"Oh, I see," cried they all. "How stupid it was not to find it out."

"Yes, indeed," said Mr. K. "But I will give you another simple puzzle."

"A blind beggar had a brother. The brother died. What relation were they to one another?"

"Why, brothers, of course," said Jack.

"No," said Mr. K. "Try again."

"They might be brothers in law," said Mrs. K.

"They might have been, but they were not," said Mr. K. "The fact is, a blind beggar may be either male or female. In this instance she was a female, therefore they were brother and sister."

Now, children, go and puzzle your father and mother. According to the request of one of the little ones last month I give one little nursery rhyme.

THE WONDERFUL DOCTOR.

There was an old doctor of Brille, He gave all his patients a pill; 'Twould cure 'em, he said, Or else kill 'em dead, This wonderful doctor of Brille.

ANSWERS TO PUZZLES.

HIDDEN ANIMALS.

- 1. Hyena, 2. Ape,

- 3. Wild Cat, 4. Mouse, 5. Eland, 6. Monkey, 7. Rabbit, 8. Beaver, 9. Mare, 10. Ermine.

ACROSTIC.

April, May. Wm. A. SHIER. Armeu, May 6, 1872.

HIDDEN ANIMALS.

- 1. Hyena, 2. Ape, 3. Wild Cat, 4. Mouse, 5. Coney, 6. Monkey, 7. Rabbit, 8. Beaver, 9. Mare, 10. Ermine.

ACROSTIC.

April, May. S. C. SOMERVILLE. Chatham, Ont., May 1, 1872.

ACROSTIC.

Joyous now, and glad are we, Up we jump, and shout with glee! Now the "spring's work" a l is done, Each good boy must have some fun. J. LAWSON. Battersea, May 3, 1872.

MISCELLANEOUS ENIGMA.

I am composed of nin teen letters. My 1, 18, 10, 4, is a kind of grain. My 2, 6, 9, 11, is another word for smooth. My 19, 5, 17, 12, is an action. My 13, 14, 2, is a girl's nickname. My 12, 5, 2, 8, is an animal. My 3, 9, 19, is a color. My 15, 10, 11, 9, is often used by old men. My 16, 1, 1, is an article of dress. My 4, 7, 6, 9, 11, is a number. My whole is a motto of one of our agricultural papers.

MAY BELL.

ANAGRAM.

Eth samferr file si het efil orf em, I won I voel ti readily; Dan v-ery souse huff fo egie, I kate tis robals recchily. Ot voip rows, ot pare ro omu, Ro ni teh raab of resthli firs; Tals noe of em I la-dlyp ese. Tilt'w ribng em taheli nad asch ris. BELLA.

ALLITERATION.

Did Dan Dorking dip a dollar Down deab darky's dirty den? Does dear Dave dive to delve it? Drawn by Dorothy Dumping's hen?

CONCEALED FRUITS.

- 1. As soon as the cur ran toward them they ran away. 2. Fill the kettle at the pump, kindle a fire and set the table. 3. I called to ma to ask if I might go with her. 4. Always keep lumber in a dry place. 5. There appeared to be signs of rain. 6. To the Chief I gave a necklace.

BEET SUGAR MAKING IN SWEDEN.

In the last issue of the ADVOCATE was a letter from Mr. Kraft regarding the first successful attempt in Canada to produce from the beet a sugar fit for family use. In this issue we publish a letter from Mr. Cull on the subject. As the subject is one of very great importance to the country, we give it more than usual prominence in our paper. We give some interesting selected facts, furnished to the U. S. Department of Agriculture, from Mr. I. Franckwell, one of the proprietors of the oldest beet sugar factory in Sweden.

The factory at Landskonna and that at Stockholm in 1870 manufactured 1,500,000 lbs of sugar, worth \$180,000, and molasses worth \$5,000. The land on which the beets were grown is mainly a rich loam, drained and cultivated to the depth of 16 or 18 inches. Both stable and artificial manures have been used. From 13 to 14 tons of beets per acre is the average crop.

Mr. Franckwell estimates that there are more than 1,000 beet sugar factories in Europe.

A Plowman's Adventure.

In the fall of 1867, I went on a drumming expedition through different sections of Georgia and Alabama, endeavoring to sell agricultural implements. I never labored more diligently than I did for two weeks, in which time I made the gratifying sale of two turning plows—an Eddy iron beam, and a Peekskill No. 194.

One universal sentiment confronted, in defiant expression, every argument I could bring to bear in favor of large turning plows:—"It will kill the land to use them," was the invariable answer.

I arrived one Friday afternoon in a little town in Alabama, to which I had shipped the two plows named, as samples to sell by. After eating dinner, I walked over the way to where a dozen men of the town were lounging in the shade to escape the burning rays of the August sun. I modestly introduced myself and my business to the group, and was soon engaged in a discussion of the merits of the use of the large turning plows. One of the gentlemen was not impressed at all with my story of the capacity of one of my plows for turning. There was a lot near at hand which had once been cultivated as a garden, but since it had not been cultivated that season, there had grown upon it an enormous growth of what are commonly called rag-weeds. My incredulous disputant wanted to bet me twenty-five dollars against the price of the plow, that I did not have one that could turn under the rag-weeds in that lot. It being against my training and principles to bet, I declined his challenge, but in its stead told him I would hire a team of mules and turn under the weeds, if he would promise to pay me twenty-five dollars for the plow, should I turn under the weeds. He agreed to the proposition, and I hired a pair of mules, and took the plow in hand. I attached a chain from the double-tree, running back to the right handle of the plow, to drag the weeds into the furrow.

When I was ready to start, there were twenty-three men sitting on the fence around the lot. The mules were spirited, and carried to the plow finely, and though the weeds stood fully six feet, there was little trace of them to be seen when I had plowed. I had run about a dozen furrows when a new spectator arrived upon the scene, in the person of the owner of the lot which I was turning under so prettily; and from the first glance at the work done, it seemed highly probable that he would become an actor also. There was an expression indicative of his having been at once insulted and injured, and that he was inclined to resent both.

He wanted to know what the deal was killing his old garden that way? Who asked me to come in the way with that infernal gully-digger, tearing the garden to pieces?"

I was decidedly taken aback for the moment. The old gentleman seemed ready to mean fight. I had no desire either for an adventure of this kind; still I knew that it would not benefit me any to play penitence, or anything of that kind; so I told him very positively that I thought the garden needed plowing, and I therefore had traversed a hundred miles to plow it for him, and had brought with me one of my celebrated Peekskill plows. "One of the best plows, sir, you ever saw," I continued. "Just notice this mouldboard; turns under the weeds so thoroughly that this garden will be so rich next spring, that it will make your head swim to see a crop growing on it."

I didn't give him time to reply, but showered on his ears the most rapid and unceasing volley of words and sentences in favour of deep plowing and prizing, that I ever attempted before or since. I made plain to him, by biblical and historical reference, that every other civilized country on the globe use, and have used from time to time, the memory of man runneth not deep tiling plows; that every country where they were used prospered; that the deeper the tiling, the more thrifty the agriculture; lands that are so tilled improved with every passing age, instead of wasting as is the case in our country, there was no reason why a plow should injure the garden more than the spade; that same ground when it was a garden had no doubt been spaded, I became poetically inclined:

"Plow deep to find the gold, my boy, Plow deep to find the gold, The earth has treasures in her breast Deep plowing will unfold."

And—

"A farmer once about to die, Called on his children to come nigh. I leave, he said, a small estate, But buried wealth to make it great. He died. His sons dug well the ground, But there no hidden treasures found; Said one, when they their corn had sold, This is the horde our sire foretold."

My off-hand way (and, as Willis Biggers would call it, "ground hog") speech modified the old gentleman considerably, and he agreed that if I would give a written warrant, that I would pay for the damage done the land, if it was damaged by the plowing, I might go on. This I agreed to do, and resumed my work I somehow, was not required to give the written warrant. I sold my two plows; and a year after, travelling the town, I saw some of the finest looking corn on this piece of ground that I ever saw grow, and since that time have sold many implements and seeds in that town, and the regions round about. So much for the result of my adventure.—S. A. E., in Rural Southerner.

"HOW MOTHER DID IT."

Especially for Men to Read.

We find the following "confession" going the rounds of the papers, and as it is one of those "pat" talks we always delight in, we give it a snug place herein. We hope all the men who compliment their wives with glowing accounts of "how mother did it," will commit this to memory. We also suggest to the MARIA ANNS, the world over, to follow out the hint to go and do likewise which this special MARIA ANN inaugurated. Here is where the story begins:

"I found fault, some time ago, with MARIA ANN's custard-pie, and tried to tell her how my mother made custard pie. Maria made the pie after my recipe. It lasted longer than any other pie we ever had. Maria set it on the table every day for dinner; and you see I could not eat it, because I forgot to tell her to put in any eggs or shortening. It was economical; but in a fit of generosity I stole it from the pantry and gave it to a poor little boy in the neighborhood. The boy's funeral was largely attended by his former playmates. I did not go myself. Then there were the buckwheat cakes. I told Maria Ann any fool could beat her making those cakes; and she said I had better try it. So I did. I emptied the batter all out of the pitcher one evening, and set the cakes myself. I got the flour and the salt water; and, warned by the past, put in a liberal quantity of eggs and shortening. I shortened with tallow from roast beef, because I could not find any lard. The batter did not look right, and I lit my pipe and pondered. Yeast, yeast to be sure. I had forgotten the yeast. I went and woke up the baker, and got six cents' worth of yeast. I set the pitcher behind the sitting-room stove, and went to bed."

"In the morning I got up early, and prepared to enjoy my triumph; but I didn't. That yeast was strong enough to raise the dead, and the batter was running all over the carpet. I scraped it up and put it into another dish. Then I got a fire in the kitchen and put on the griddle. The first lot of cakes stuck to the griddle. The second did too, only a little. Maria came down and asked me what was burning. She advised me to grease the griddle. I did it. One end of the griddle got to hot and I dropped the thing on my tenderest corn while trying to turn it around. Finally the cakes were ready for breakfast, and Maria got the other things ready. We sat down. My cakes did not have exactly the right flavor. I took one mouthful, and it satisfied me. I lost my appetite at once. Maria would not let me put one on her plate. I think those cakes may be reckoned a dead loss. The cat would not eat them. The dog ran off and stayed away three days after one was offered to him. The hens wouldn't go within ten feet of them. I threw them in the back yard, and there has not been a pig on the premises since. I eat what is put before me now, and do not allude to my mother's system of cooking."

SUGAR BEETS IN NEW JERSEY.

Our readers have doubtless heard of the very heavy taxes which now press on all classes in the United States. There are, besides the general taxes of the country, special state taxes. So fully aware are they of the advantages likely to accrue to the country from the manufacture of beet sugar that the State Legislature of New Jersey has passed a law exempting from taxation for ten years any establishment exclusively engaged in the manufacture. On the State Agricultural farm last year two kinds of beets were raised as an experiment, the Silesian, which yielded eighteen tons an acre on good ground, and the Nursery, which, on poorer ground, yielded nine tons. They were cultivated in rows twenty-eight inches apart, and about ten inches apart in the row.

HOME-MADE MANURES.

Home-made manure is a subject upon which much has been said and written, and yet it seems but little understood. Every farmer, I suppose, understands the great importance of manure in agriculture, and in writing this article, I do not propose to give any borrowed theory, or any theory, but my own, derived from actual experience and observation. I think no theory is worth much, no matter how well written, or how beautiful it may appear on paper, unless the writer has some practical knowledge of its workings, or can reduce his theory to practice profitably.

Having said this, by way of preface, I will now say something of my experience and observation in regard to home-made manure.

I understand by home-made manure is meant just such manure as can be made on the farm without the aid of chemicals or other foreign matter. My father was one of the very first settlers in this country, and cleared and cultivated the very best land, and never used manure of any kind, only as it chanced to fall upon the land from the droppings of stock about the lots of cox-pens. I never knew him to apply one particle to any crop. When the manure would accumulate in his stables till it was in the way, he would have it thrown out in piles, and lie there and was it.

I have noted the effects of manure in cultivating cow-pen places and near the lot and stables; and the first year I farmed for myself, I took the ox-wagon and hauled out these piles of manure that had been lying about my father's stables for years, and applied in the hills of my corn with very satisfactory results. I was ten on my father's place. I have been working at it every year since, more or less but very carefully, till since the war. What little labor I had being destroyed. I was more than ever impressed with the necessity of increasing the yield per acre, and cultivating less land. I commenced being more careful with my manure; I scraped all my cow-pens, corners of the fence near the house and lot, and one or two low, bare places, where matter had been collecting for many years. I hauled this matter thus scraped up and scattered it broadcast upon the land. I also used all the chicken-droppings I had to spare broadcast, sowing them in the fall upon a wheat land.

I let my stable manure remain in the stable till I want it for use. I throw it from the stable in the wagon and carry it from there to the field, and take it from the wagon and scatter broadcast for wheat, or put it in the row for corn or cotton, having the rows already run off; and take the manure from the wagon and apply in the row.

I had droppings from the cow taken up every morning and thrown into pens. I commenced on land that would not have made more than three or five bushels of wheat to the acre and increased the yield to eighteen bushels and twelve pounds of clover the third year with a very poor stand, and wheat badly rusted. I think it would have made thirty bushels this year, if there had been a good stand and no rust. I sowed in wheat three years in succession, made a crop of wheat followed with corn and peas each year, and steadily increased the yield. I commenced on land that would not have produced more than fifty to three hundred pounds of seed cotton per acre, and brought it up to one thousand eight hundred pounds the second year, and from fifteen hundred to over two thousand pounds the fourth year. Now, as to the progress of making manure, I keep on now, after the droppings of the stock and accumulations around the yard, the old manure, and about the lot are consumed, that will pay.

The best plan to save the stable manure is to let it remain in the stable till wanted in the field, then take it from the stable to the field; when taken from the wagon, deposit where it is intended to remain, as it is too heavy to handle often. The best way to save cow manure is to take it up every morning and put under shelter; if it is left upon the ground it is leached and washed away all the time, and the bugs appear to work it under the ground and destroy it. The droppings of all stock should be gathered up every day.

Now, according to your plan, you have got your manure all under cover, that is the droppings from all your stock, where the rains cannot reach it, nor the water accumulate in it to increase the labor of hauling. I will next say a little about the compost heap. What is the compost heap for, and what is it made of? Well, some say corn stalks, leaves from the field and growth of weeds, or brush, or decayed matter of any sort. Now, I am very much inclined to believe that there will not be one single man at the Macon Fair that has made one dollar of clear money by making a compost heap entirely out of such material as could be

collected about the farm independent of the droppings of stock, cotton seed or ashes, and these materials are just as valuable, and easier to handle alone; but if these materials that you collect for the compost heap are valuable, why make them into a heap, and haul them to the field? why not scatter them broadcast and plow them under? Making them into a heap and taking them up from there and hauling to the field is too much labor, as the heap gains nothing while lying there but weight. The farmer cannot afford to do labor that does not pay, and composting these heaps out of your material, and moving them two or three times, is doing too much for their value.

Another notion that prevails among farmers, is to litter the lot with leaves and other vegetable matter; it is said to absorb and prevent the manure from washing off; this does not prevent the rains from leaching and carrying off the strength of the manure. One hundred loads of leaves hauled in and scattered on the lot in the fall would probably make three hundred loads in the spring. Take the labor of hauling four hundred loads in the spring, for nothing, the manure left to lie on the lot will lose more by leaching than will be gained by all this labor. Keep the manure gathered up every morning and put under cover, and haul all other matter directly to the field, where it is intended to be used.

Another notion that prevails is to go to the swamps and haul mud or muck to put into compost heaps. This, I think, is erroneous, and does not pay; hauling mud is an uphill and a heavy business, and labor I find to be about the dearest thing that is upon the market. If there is any value in the mud, take it and apply it just where it is intended to remain. So with all other matter intended for manure, the first time it is put upon a wagon, deposit it where it is intended to stay.

I suppose I have said enough to be understood. I say that stock is the only profitable resource the farmer has for making manure. When I say stock, I mean poultry, and every living thing upon the place. And I say the best manner to save from stock is to gather up every day, and put under shelter.

After all the droppings of stock are consumed, it is doubtful whether any composting or any work outside of that will pay as regards manuring.

Save, carefully, the droppings of the stock, cotton seeds and ashes, and look well to the expense before you compost or litter your lot too much.—JOHN C. RAGSDALE, in So. Farm and Home.

CHARCOAL ON FLOWERS.—A correspondent of the *Revue Horticole* says that not long ago he made a bargain for a rose bush of magnificent growth and full of buds. He waited for them to blow, and expected roses worthy of such a noble plant and of the praises bestowed upon it by the vendor, but when it blossomed all his hopes were blasted. The flowers were of a faded hue, and he discovered that he had only a middling mul-flora, stale color enough. He therefore resolved to sacrifice it to some experiments that he had in view. His attention had been directed to the effects of charcoal as stated in some English publications. He then covered the earth in the pot in which the rose bush was about half an inch deep with pulverized charcoal. Some days afterward he was astonished to see the color which bloomed of as fine a lively rose color as he could wish. He determined to repeat the experiment, and therefore when the rose bush had done flowering, he took off the charcoal, and put fresh earth about the roots, and waited for the next spring impatiently to see the result of this experiment. When it bloomed, the roses were at first pale and discolored, but by applying the charcoal as before, they assumed their rose red color. He then tried the powdered charcoal in large quantities upon petunias, and found that both the white and violet colored flowers were equally sensitive to its action. It always gave vigor to the red or violet colors, and the white petunias became veined with red or violet tints; the violets became covered with irregular spots of a bluish or almost black tint. Many persons who admired them thought they were choice new varieties from the seed. Yellow flowers appear to be insensible to the influence of charcoal.

Emporium Price List for June.

- Carter's Patent Improved Ditching Machine.
Carter's Patent Improved Tine Machine.
Patent Stump Extractors \$50, \$75, \$100.
Billington's New Empire Nine Rowed Seed Drill, \$70.
Two Rowed Turnip Drill, with rollers, \$16.
One Rowed do do do do \$10.
Improved Drills, for small seeds, \$5 to \$7.
Patent American Horse Cultivator, \$10.
do do do do with plow attachment \$16.50.
Patent American Garden Cultivator, \$7.50.
White's Improved Cultivator, \$12.
do do do do with mould boards \$14.
Little Giant Thresher, \$185.
Forfar's new Churn, Pride of the Dairy, \$4.50.
Churns other varieties.
Improved Grain Crushers, \$30, \$35, \$40.
Maple Leaf and other Ploughs, from \$16.
Double Mould Board Plough, \$5.50.
Walmsley's Patent Potato Digger, \$16.
Iron Harrows, from \$18 to \$24.
Chaff Cutters on the most approved principles, from \$16 to \$50.
Gardner's Root Cutters, from \$25.
Cider Presses, single gear \$30, double gear \$34.
Losee's Patent Bee Hives.
Grant's Patent Excelsior Hay Forks, with three pulleys, \$12.
Jones' Amalgam Bells, for schools, churches, farms, &c., from \$10.
Matheson's Patent Washing Machine, \$10.
Improved Clothes Wringer, with indian rubber rollers, \$8.
Taylor's Patent Burglar and Fire Proof Safes, from \$35.
Lamb's Patent Knitting Machine, \$33.
Lockman's Patent Sewing Machine, \$30 and \$35.
Gardner's Patent Sewing Machine, \$30 and \$35.
Gates' Patent Sewing Machine, \$35.
Excelsior Lawn Mower. This machine is the easiest to work of any made; it took first prize at Western Fair.
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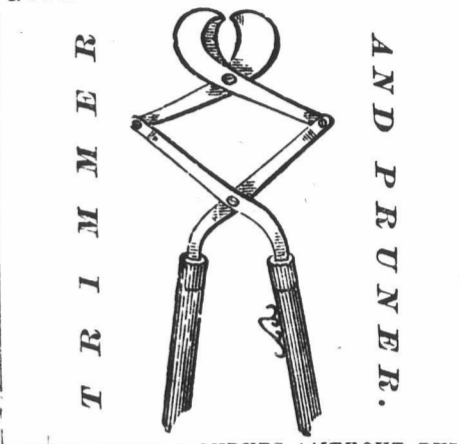
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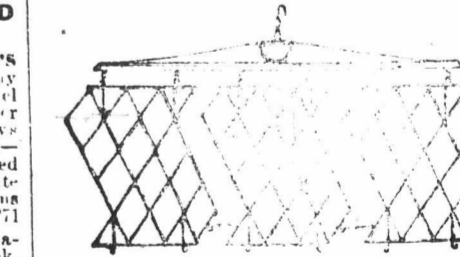
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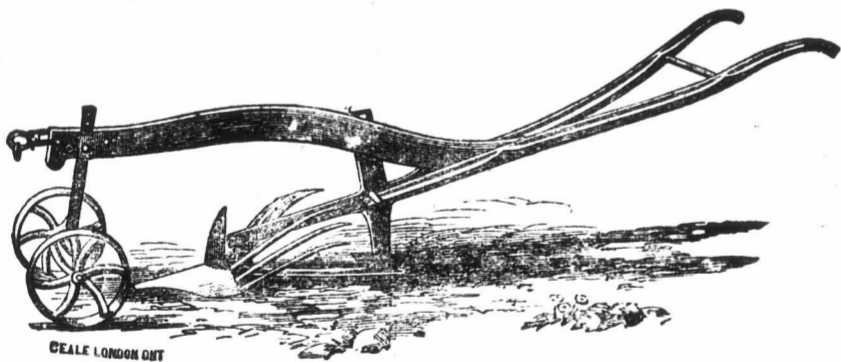
WE, THE UNDERSIGNED, HAVING BEEN PRESENT AT A TRIAL AND carefully examined the workings of the Machine recently invented by Mr. Henry Carter for the purpose of making Open Ditches, Grading Roads and Subsoiling, consider the said Machine admirably adapted for performance; all the operations claimed by the inventor, and we feel justified in recommending this Machine to the Municipal Officers of every city, town, village and township in the country, satisfied that a very great saving will be made to the public by using the said Invention for improving the highways of the country. The Machine is exceedingly simple in construction, substantially put together, and not likely to get out of order. A man and heavy span of horses can handle it as readily as an ordinary plow. We also highly recommend this Invention to Farmers who contain a large Open ditching, Road Grading and Subsoiling; also to Railroad Contractors for Grading and Ditching:—

- | | | |
|--------------------------|---------------------------|----------------------------|
| T. M. NAIN, Reeve. | SETH LEWIS, Farmer. | WILLIAM HARVEY, J. P. |
| FRANK FOSTER, M. D. | JAMES BROWN, J. P. | ALEX. SUMMERS, Farmer. |
| JNO. W. GILBERT, J. P. | SHELDON WARD, Farmer. | DAVID F. DAVIS, J. P. |
| Geo. BATES, Farmer. | AARON PRICE, Farmer. | JAMES GARRETT, Farmer. |
| HIRAM J. BROWN, Miller. | S. W. TREPPE, Farmer. | JUNIOR M. DAVIS, Farmer. |
| ANDREW MURRAY, Merchant. | GANES PRICHARD, Farmer. | LOUIS DAVIS, Farmer. |
| SIMON MILLER, Farmer. | A. WILLIAMS, M. D. | W. E. MURRAY, Conveyancer. |
| WILLIAM WARKOCK, Farmer. | THOMAS BALLAH, Farmer. | GEORGE CHAMBERS, Farmer. |
| WILLIAM ADAMS, Farmer. | HARVEY VANPATTER, Farmer. | EDWIN PRICE, M. D. |
| DANIEL BROOKS, Farmer. | Geo. I. WALKER, Merchant. | WM. CAMPBELL, Road Com'r. |

A few active Agents wanted to sell the above Machine. None but first-class men. Apply to

CARTER & STEWART,
Proprietors, Aylmer, Co. Elgin, Ont.

Aylmer, May, 1872.



FOR SALE, THE RIGHT TO MANUFACTURE THE WALMSLEY POTATO DIGGER,

TOGETHER WITH DENNIS' IMPROVEMENT.

MY IMPROVEMENTS on this IMPLEMENT make it really EFFICIENT and VALUABLE, and without which it never was of much service.—References kindly permitted to, and particulars in regard to the operation and general efficiency of my Improvement obtained from W. WELD, at the "Canadian Agricultural Emporium," who has fully tested the Improvement.

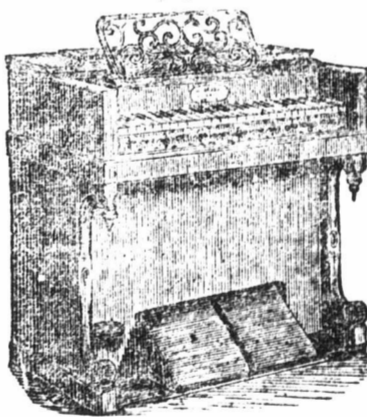
CAUTION.—I hereby forbid any one using my Improvement on said Machine without my consent.
R. DENNIS. 6-1f

London, Ont., May 26, 1872.

\$30 PER WEEK and expenses paid. We want agents in every county. First come, first served. One agent made \$170 in 11 days. Address: Hunt on River Wire Co., 89 King St. West, Toronto, Ont., or 130 Maiden Lane, New York. May-72 3t

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. 1-y



W. BELL & CO., Organ & Melodeon Manufacturers, GUELPH, ONT.

RECEIVED AT KINGSTON, A Silver Medal, and all the First Prizes.

At Western Fair, London. Diploma and First Prize for best Melodeon and Cabinet Organ of any kind.

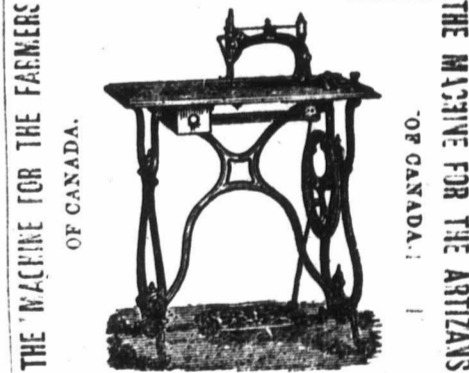
At Great Central Fair, Hamilton. Diploma and all the First Prizes.

At Central Exhibition, Guelph. A Diploma for General Excellence, and 3 First Prizes out of 4 for Music.

FOR SALE.

THE THOROUGH-BRED JERSEY BULL "DANIEL," 3 years old, highly commended at Provincial Fair last year. Price \$125.—Address JOSEPH BAWDEN, Kingston, Ont. 8-1

The King of Sewing Machines



THE OSBORN Sewing Machine

THE MACHINE FOR THE FARMERS OF CANADA. THE MACHINE FOR THE ARTIZANS OF CANADA. Has now been improved upon all questions, and the result of the process is that today it stands without a rival. It is the most substantial built, and the lowest working price, and is peculiarly in design and finish. Has the best design of a shuttle, and by far the largest dooms. It is capable of performing a range of work which is beyond the power of any other single thread machine. Larger and works with greater ease than all other kinds of domestic sewing in a perfectly satisfactory manner. Has taken first prize wherever exhibited. Agents wanted everywhere. OSBORN MANUFACTURING CO., GUELPH SEWING MACHINE CO., GUELPH, CANADA.

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BREAKFAST.—Epps's COCOA—GRATEFUL AND COMFORTING.—By a thorough knowledge of the natural laws, which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which may save us many heavy doctor's bills. Civil Service Gazette. Made simply with Boiling Water or Milk. Each packet is labelled—James Epps & Co., Homoeopathic Chemists, London. Also, makers of Epps's Milky Cocoa (Cocoa and Condensed Milk.) 72-1-y

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WHOLESALE AND RETAIL
Manufacturer of Furniture,
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DEALER in all kinds of MUSICAL INSTRUMENTS. BRASS BANDS supplied with new or second-hand Instruments, at from One Hundred to Two Hundred Dollars per set of from ten to twelve pieces. Brass and Brass Side Drums. Musical Instruments of all kinds Tuned and Repaired.
97 YONGE STREET, TORONTO. 3-y

1872] SEEDS. [1872

SANDERSON'S CATALOGUE OF SEEDS

FOR THE
Farm, Vegetable Garden, and Flower Garden.

CONTAINS all the LATEST NOVELTIES in VEGETABLE, FLOWER & FARM SEEDS—
French Cauliflower and Cabbage Seeds; New Egyptian Beet; New Nantes Stump-rooted Red Carrot; Laxton's Alpha Peas; Carter's First Crop and Little Gem Peas; New Potatoes, comprising Excelsior, also Excelsior, Early Mohawk, Climax, and Prolific, also Excelsior, Early Prince, and Early Simpson Lettuce; Trophy Tomato; Early White Nibble Dick Turnip; Vilmorin's Improved Sugar Beet; Swede Turnips in all the best varieties in cultivation, including Westbury, Covent Garden Improved Purple Top, Carter's Imperial, Skirving's, East Lothian, Shepherd's Golden Globe, &c. &c.

GRASS SEEDS.—Rye Grass, Crested Dogtail; Red Top; Orchard Grass; Kentucky Blue Grass; Mixed Lawn Grass, &c. &c.
Wire Flower Stands; Wire Hanging Baskets, &c. Lawn Mowers and Seed Drills.

Catalogues free by mail on application.
25 Packets Flower Seeds free by mail for \$1.
W. SANDERSON, Seedman,
Brantford, Ont. 4-3

Brantford, April, 1872.

CHEAP FARMS! FREE HOMES!

ON THE LINE OF THE UNION PACIFIC RAILROAD.

A LAND GRANT OF 12,000,000 ACRES OF THE Best Farming & Mineral Lands in America.

3,000,000 ACRES in NEBRASKA IN THE GREAT PLATTE VALLEY, THE GARDEN OF THE WEST, NOW FOR SALE!

These lands are in the central portion of the United States, on the 41st degree of North Latitude, the central line of the great Temperate Zone of the American Continent, and for grain growing and stock raising unsurpassed by any in the U. States.

CHEAPER IN PRICE, more favorable terms given, and more convenient to market than can be found elsewhere.

FREE Homesteads for Actual Settlers. The best locations for Colonies. Soldiers entitled to a Homestead of 160 acres. 25 Free Passes to purchasers of land.

Send for the new descriptive pamphlet, with new maps, published in English, German, Swedish and Danish, mailed free everywhere.

Address—O. F. DAVIS, Land Commissioner, U. S. R. Co., OMAHA, NEB., U.S. April, 1872. 4-3

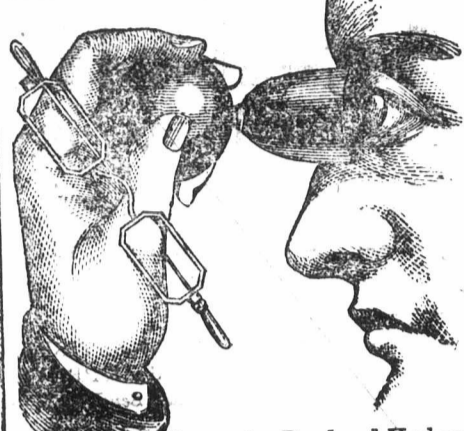
THE ARTIST PHOTOGRAPHER, **FRANK COOPER,** STUDIO RICHMOND STREET,

Near the Revore House, the place where the beautiful "Rembrandt" is made. London, May 1871. 71-51

J. H. WILSON, VETERINARY SURGEON,

Graduate of the Toronto Veterinary College. Office—New Arcade, between Dundas street and Market Square. Residence—Richmond street, opposite the old Nunnery. 71-94

RESTORE YOUR SIGHT.



Spectacles Rendered Useless. **OLD EYES MADE NEW.**

All diseases of the Eye successfully treated by

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Many of our most eminent physicians, oculists, students and divines have had their sight permanently restored for life, and cured of the following diseases:

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Any one can use the Ivory Eye Cups without the aid of Doctor or Medicine, so as to receive immediate beneficial results and never wear spectacles; or, if using now, to lay them aside forever. We guarantee a cure in every case where the directions are followed, or we will refund the money.

2399 Certificates of Cure, From honest Farmers, Mechanics, and Merchants, some of them the most eminent leading professional and business men and women of education and refinement, in our country, may be seen at our office.

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Prof. W. Merrick, of Lexington, Ky., wrote April 24th, 1859: "Without my Spectacles I pen you this note, after using the Patent Ivory Eye Cups thirteen days, and this morning perused the entire contents of a Daily Newspaper, and all with the unassisted Eye."

Truly am I grateful to your noble invention: may Heaven bless and preserve you. I have been using Spectacles twenty years; I am seventy-one years old. Truly Yours, PROF. W. MERRICK.

Rev. Joseph Smith, Malden, Mass., cured of partial Blindness, of 18 years' standing, in one minute, by the Patent Ivory Eye Cups.

E. C. Ellis, late Mayor of Dayton, Ohio, wrote us Nov. 15th, 1859: "I have tested the Patent Ivory Eye Cups, and I am satisfied they are good. I am pleased with them; they are the Greatest Invention of the age."

All persons wishing for full particulars, certificates of cures, prices, &c., will please send your address to us, and we will send our Treatise on the Eye, of 44 pages, free of charge, by return mail.

Write to DR. J. BALL & CO., P. O. Box 97, No. 91, Liberty Street, NEW YORK.

For the worst cases of Myopia, or Near-Sightedness, use our New Patent Myopic Attachments, which applied to the Ivory Eye Cups, has proved a certain cure for this disease.

Send for pamphlets and certificates—free. Waste no more money by adjusting huge glasses on your nose and distorting your face.

Employment for all. Agents wanted for the new Patent Improved Ivory Eye Cups, best introduced in the market. The success is unparalleled by any other article. All persons out of employment, or those wishing to improve their circumstances, whether gentlemen or ladies, can make a respectable living at this light and easy employment. Hundreds of agents are making from \$10 to \$20 A DAY. To five agents \$20 a week will be guaranteed. Information furnished free of charge. Send for pamphlet, circulars, and price list. Address

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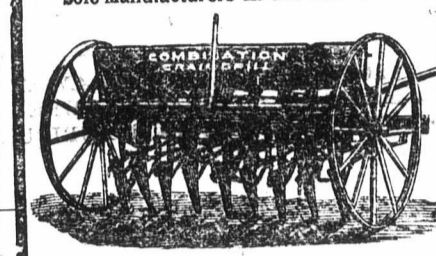
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Being a Handy Book of Forms, with observations, designed for the use of Farmers, Merchants and others. Enabling them to draw their Deeds, Mortgages, &c., without the assistance of a lawyer.—Price \$1.50. Sent free by mail to any address, on receipt of the amount.

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COMBINATION GRAIN DRILL
WITH
Grass Seed Sower.

L. D. SAWYER & CO.
Sole Manufacturers in the Dominion.



OUR **COMBINATION GRAIN DRILL**

TOOK FIRST PRIZE at PROVINCIAL Exhibition, Toronto, in 1870; also, at Provincial Exhibition at Kingston, in 1871; at the Central Fair, Guelph, in 1871; and at numerous County Fairs the past two years. In fact, it has never been defeated. It is excelled by no Drill manufactured in the Dominion or the United States. Drills for Spring seeding ready for delivery March 1st.

We would call the attention of agriculturists to the following machines manufactured by us:

- The Ohio & Champion Combined Mowing & Self-Rake Reaper
- Johnston's Single Self-Rake do.
- Wood's Jointed-Bar Mower
- Sprague Iron Frame Mower
- Carter's celebrated Ditcher
- Pitt's 8 & 10 Horse-Power Threshing Machine
- Taylor's Sulky Horse Rake
- Power and Hand Cutting Boxes, &c.

Send for catalogue. Address **L. D. SAWYER & CO.,** 4-2 HAMILTON, ONT.

SEEDS THAT'S TRUE,

GEO. J. GRIFFIN

Bros to call special attention to his stock of the following varieties of

FIELD SEEDS:

- SWEDE TURNIP. Skirving's Purple Top, King of Swedes, Westbury's Purple Top, Bronzo Top Swede, Lang's Improved

- MANGEL WITZEL. Griffin's Improved Long Red, Clark's Elvetham Long Red, Clark's Yellow and Red Globe, &c., &c.

- CARROT, best French Seed. White Belgian, Scarlet Intermediate, Long Altringham, Long Orange, Improved White Green Top or Ortho new, &c., &c.

AT GRIFFIN'S SEEDSTORE, ESTABLISHED 1855 RICHMOND STREET.

Toronto Nurseries

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EXTENT, 150 ACRES

The Stock embraces Trees, Plants and Flowers, suitable to the climate, which we can pack to carry safely to any part of the world.

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GUELPH, ONT.,

MANUFACTURE all kinds of Agricultural Implements—

- Canadian Sifter Fanning Mills
- Paris Straw Cutter
- Little Giant Straw Cutter
- One Horse Seed Drills
- Hand Seed Drills
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All orders from a distance carefully attended to, and satisfaction guaranteed.

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IMPORTANT TO Farmers, Gardeners, Florists, Seedsmen, &c.

Bone Super-Phosphate Manure,

Quality Guaranteed! Analysis by the Highest Authority!

PRICE \$40 PER TON, In good barrels, containing 200 lbs. each, and in bags containing 50 lbs. each.

No charge for Bags or Barrels. **BEST AND CHEAPEST FERTILIZER MADE.**

Try it, and you will always use it. Manufactured by "WESTERN OF CANADA" Super-Phosphate Works, London

JOHN WALKER, Manager. All orders addressed will secure prompt attention. Agents wanted. London, Feb., 1872. 3-3

GEO. J. GRIFFIN, Seed Merchant,

WHOLESALE AND RETAIL DEALER IN

Field, Garden and Flower Seeds,

IMPORTER OF ENGLISH, FRENCH & AMERICAN SEEDS; DUTCH FLOWERING BULBS, &c.

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ESTABLISHED 1855.

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PRODUCE DEALERS AND COMMISSION MERCHANTS. Office—Corner of King and Oxford streets, INGERSOLL, Ont.

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LAMB KNITTING MACHINE

\$50 and \$33 Each, **WORK BY HAND**

Sets up its own work, knits a pair of Stockings in 30 Minutes. Also, Fancy Vests, Clouds, Gloves, Mittens, Cuffs, Collar-cuffs, Caps, Shawls, Hoops, Babies' Bonnets, Counterpanes, Anti-Macassars, Window Curtains, Double and Single Webbs, Ribbons or Plain, &c. These Machines knit the Polka Stitch and Cardigan Jackets, Wide and Narrow, the same as hand work. Also, the

SINGER & HOWE SEWING MACHINES,

For Families and Manufacturers' use, cheap for cash, wholesale and retail.

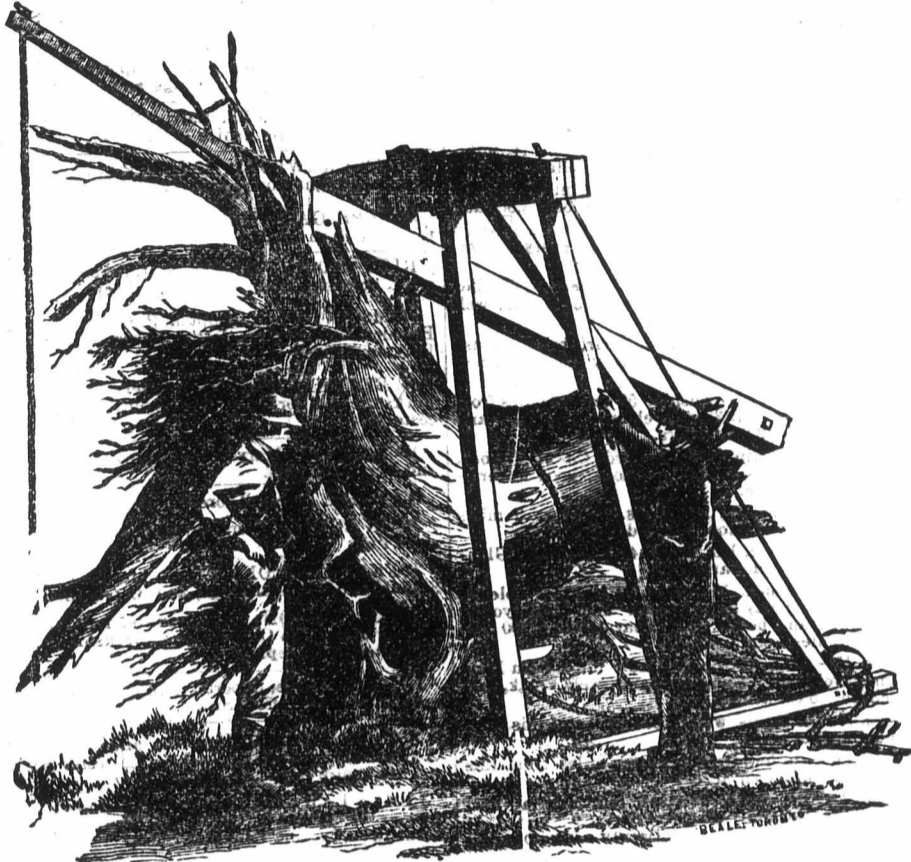
The latest out, needed by every lady in the land, **THE CRESCENT GRADUATED Button Hole Cutter.**

Send 25 cents for sample, and get your county right.

Sole Agent for the Dominion: **H. Bailey, 205, Yonge-st. Toronto** P.O. Box 675. Toronto, Ont., Feb. 27, 1872. 3-y

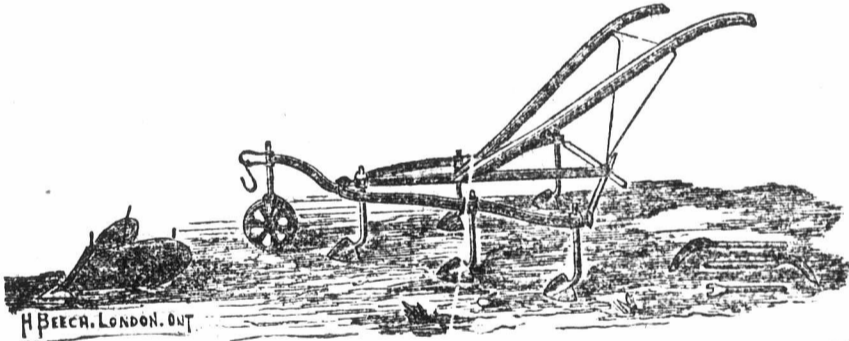
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THE DOMINION STUMP EXTRACTOR
THE BEST STUMP EXTRACTOR MADE.



Will take out 20 to 50 stumps per day, depending on size. Three sizes. No. 1, capable of drawing any stump, \$120. No. 2, for stumps 2 feet 6 inches. \$90. No. 3, for 18 inch stumps, \$70. The largest sizes will take out the smallest stumps, but they are constructed much stronger and heavier. Apply to PLUMMER & PACEY, Waggon Makers, London, or to W. WELD, Agricultural Emporium. N.B.—HUBS, SPOKES and BENT STUFF always on hand. 72-3-1

WHITE'S CULTIVATOR,
THE BEST IRON ROOT CULTIVATOR MADE.



Short, light, strong, durable, runs easily and steadily, does its work most efficiently; it has Steel Feet and Steel Weeder for attachment; also, the teeth can all be easily removed and the Drill Plough inserted in the frame. It will pay every good farmer to have one. Price of Cultivator only \$14, complete with Mold Board; \$12 with Teeth and Weeder, without the Mold Board. Terms cash down. JOHN WHITE, King-street, London; or W. WELD, London. 72-3-3

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FOR SALE, 106 ACRES of GOOD LAND, three-quarters of a mile from the city. This is the most beautiful site for a gentleman's residence to be found anywhere near London, and is admirably adapted for building lots; being in one of the most elevated and picturesque localities to be found. The soil is fertile and porous; the locality is healthy. This lot, no doubt, would have been taken ere now had it been procurable. \$15 per acre. Inferior lots have commanded higher prices.—Enquire at the Farmers' Advocate Office. Price \$16,000. 72-3-1f

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J. & J. TAYLOR,
MANUFACTURERS OF
FIRE AND BURGLAR PROOF SAFES
Combining all the latest improvements, at the lowest prices.
Send for Price List.
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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. 1-y

R. DENNIS,
King Street, London, Ont. Manufacturer of Wainwright's Patent Patent Drigger. Horse Shing & General Blacksmith's Work promptly attended to. 8

C. D. HOLMES, BARRISTER, &c., Dundas St., London, Ont. m-c

GRASSALL'S Patent Safety Shoe Store is without doubt the cheapest place in London to buy Boots and Shoes. Dundas Street and Arcade. 12-y

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F. H. MITCHELL, M. D., C. M., Graduate of McGill University, Montreal,
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Office: Gothic Hall, Dundas Street, London, Ont. 71-12-v

Great Sale of Cutters & Sleighs
in all varieties and designs, on and after December 1st, 1871. Warranted first rate material and workmanship.

HODGSON & MORAN
Richmond Street, near Crystal Palace,
LONDON, ONT. 12-5f

FOR SALE—Durham Cow, red, 7 years old, \$120. Durham Cow, Roan, \$120. Durham yearling Heifer, roan, \$100. Durham Bull, 2 years old, \$130. Yorkshire Bull, 4 years old, \$40. Apply to **ARCHIBALD STEWART, Lobo,** Or at this office. 12

EVERY FARMER
Should have a
Horse-Power Sawing Machine
And Jack combined, or separate power suitable for 2 or 8 Horses. Sawing Machines will cut 20 to 50 Cords per day. Jack suitable for driving all kinds of Machinery usually used. Price \$75.
D. DARVILL,
2
London, Jan., 1871.

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SADDLE, HARNESS & TRUNK
FACTORY.

THE Subscriber takes pleasure in calling the attention of the citizens of London and surrounding country to his large and complete assortment of

SADDLES, TRUNKS, HARNESS,
Ladies' and Gents' Valises,
COLORED WOOL MATS
Whips, Carrycombs, Brushes.

And everything connected with a first-class Harness business—all of the best material and workmanship, which will be sold at the lowest cash prices. All work warranted.

JOHN STEVENSON,
Richmond Street, opposite City Hall,
London, May, 1871. 71-6y

ABEL HINES, TAXIDERMIST, Clarence St., London, Ont. All kinds of BIRDS & ANIMALS neatly and expeditiously stuffed. Charges Moderate.

G. EDLESTON,
Dundas St., London, Ont. Dealer in STOVES, LAMPS, OIL, TINWARE, and JAPANNED GOODS. A large Stock always on hand. Cheap and good—cannot be undersold. Call and See.

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GO TO DYSON'S for CHEESE VATS and the best Stoves, Cheap as any, Dundas St., London.

T. PEEL, Practical Tailor, has always on hand a large Stock of Cloths, which he will sell at a small advance on cost, by the yard, and will cut them out free of charge. T. Peel, Merchant Tailor Dundas Street, London. 12

J. BEATTIE & Co.,
IS the cheapest Dry Goods, Millinery and Mantle Store in the City of London. 3-y

JAMES LENNOX, Merchant Tailor, Dundas St. West, Wilson's Block, keeps constantly on hand an assortment of English and Canadian Tweeds and Cloths. The patronage of the public is respectfully solicited. 1-12

J. NATTRASS, Accountant, Insurance, House, Real Estate & Ocean Steamship Agent. Lands for sale. Rents Collected. Deeds and Mortgages prepared. Money to Loan. Offices,—Market Lane Book Store, London. 12-y

ABBOTT BROS.,
CARRIAGE BUILDERS Dundas Street, East of Wellington Street,
LONDON, ONTARIO. 9

GETTING UP CLUBS.

Great Saving to Consumers.
PARTIES require how to get up CLUBS. Our answer is—You should send for Price List, and a Club Form and accompany it, with full directions, making a large saving to consumers and remunerating to Club organizers. Send for it at once.

MILLER'S GREAT TEA WAREHOUSE,
52 and 54, Front Street East, Toronto, Ontario.
Local Agents Wanted.
Toronto, April 20, 1872. 5-1f

FOR SALE,

FOUR PURE-BRED AYRSHIRE BULLS, with Pedigree—One 4 year old; one 2 year old; two 1 year old.
AARON CHOATE,
Breeder of Pure Ayrshires, Perrytown, Perrytown, April 20, 1872. 5-1f

FOR SALE, 7 Tons of genuine BONE DUST. Price \$55 per ton on board the cars.—Apply at this office. 3-1f

MOLSONS BANK.

Paid-up Capital, \$1,000,000
Reserve, 60,000
Contingent Fund, 13,900

THE LONDON BRANCH OF MOLSONS BANK, Dundas Street, one door west of the New Arcade,
Issues Drafts on London, England
New York, U.S., St. John, N.B.,
And all the principal Cities and Towns in Ontario and Quebec.
Offers unusual facilities to those engaged in the produce business.
Deals liberally with merchants and manufacturers.
Discounts for the Farming community.
Buys and Sells Sterling Exchange, New York Exchange, Greenbacks, &c., at very close rates.
Makes Advances on United States Currency and Securities on reasonable terms.
Savings Bank Department
Affords opportunity for safe and remunerative investments of accumulative savings.
JOSEPH JEFFERY,
Manager.
London, Sept 14, 1870. 10

THE
Agricultural Mutual
ASSURANCE ASSOCIATION
OF CANADA.

HEAD OFFICE, - - LONDON, ONT.
Licensed by the Dominion Government.

CAPITAL FIRST JAN., 1871,
\$231,242 25.
Cash and Cash Items, \$72,289 55.

THIS COMPANY continues to grow in the public confidence. On 1st January, 1871, it had in force

31,528 POLICIES,

Having, during the year 1870, issued the immense number of 12,319 Policies.

Intending insurers will note—
1st—That this is the only Fire Mutual in Canada that has shown its ability to comply with the law of the Dominion, and deposit a portion of its surplus funds for the security of its members,—\$25,000 having been so deposited.

2nd—That being purely mutual, all the assets and profits belong solely to the members, and accumulate for their sole benefit, and are not paid away in the shape of dividends to shareholders as in the case of proprietary companies.

3rd—That nothing more hazardous than farm property and isolated dwelling houses are insured by this Company, and that it has no Branch for the insurance of more dangerous property, nor has it any connection with any other company whatsoever.

4th—That all honest losses are settled and paid for without any unnecessary delay.

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

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