

# FARMER'S ADVOCATE

AND HOME MAGAZINE.

VOL. XV.

LONDON, ONT., OCTOBER, 1880.

NO. 10.

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## THE FARMER'S ADVOCATE

—AND—  
Home Magazine.

WILLIAM WELD, Editor and Proprietor

The Only Illustrated Agricultural Journal  
Published in the Dominion.

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### Our Prize Essays.

A prize of \$5 will be given for the best essay on "The Management of Colts during the Fall and Winter." To be in this office by the 15th of November.

Competitors must write on one side of the paper only. The essay receiving the prize is to be the property of this journal. Unsuccessful essays will be returned on request by sending stamps for return postage.

All fodder, corn, &c., should be cut before it becomes at all frosted, but in case it does become frosted before cut, do not leave it out to be rained upon.

Cattle that are being fed for market should never be worried in any way, and should not be subject to an over amount of labor in obtaining their food, or their beef will become tough and dry, like that of the ox, having a large amount of muscular development.

For the destruction of the pea weevil an exchange recommends the following:—Obtain a tight cask and fill with peas as soon as harvested. Place a saucer of bi-sulphite of carbon on the top of the grain; cover the barrel with a top. All the insects will be dead in three or four hours. Do not bring a light near, as the bi-sulphite is of a combustible nature.

Dear Friends,—We have had so many applications for extra copies from our subscribers who wish to increase our circulation, that we have determined to send extra copies of our October number to all who may apply, and to many others in different parts of the Dominion. We shall consider it a favor if you will show this extra copy to leading farmers and others whom you think should take the paper and are not yet subscribers. Your assistance and recommendation will aid us to increase the utility of the work to be done by this journal.

Yours respectfully,

W WELD.

### The Month.

The present fall has been already marked with more large fairs and a general higher class of exhibits through the country than that of any similar time in the history of the Dominion. Many of these shows were highly successful.

From reports it appears that in central Ontario the wheat crop has been light; in the extreme ends the crop has been fully an average one. The hay, coarse grains, fruit and roots are reported, with a few exceptions, above the average.

The reports from Quebec are very similar to those from Ontario.

In the Maritime Provinces and Prince Edward's Island the harvest has been one of the most abundant ever gathered there. The area of wheat was much larger than of late years, and the yield very superior. The potato crop was also most abundant.

Apples should be gathered as soon as they show an indication of dropping, or will come readily from the tree when pulled. Great care should be taken in sorting and packing.

Mangolds must be taken in before they become touched with the frost. It is more profitable and pleasant to harvest all roots before the cold fall rains and frosts set in.

Buildings for farm animals should now be made comfortable, and the stock should occupy them when it is cold and stormy.

Farm implements should now be stowed away under cover. Put each in its own special place; where needed, paint or varnish the wood work. A varnish of two-thirds resin and one-third mutton tallow is excellent for protecting iron or steel.

Live stock should be well fed now, that they may begin winter in high condition.

Many waste products may be utilized. Feed the root tops, but not in large quantities at one time. Do not let your stock have free recourse to these, especially your sheep. Force your fattening stock along; they will put on flesh much more rapidly now with the same feed than in the cold weather. Do not commence winter with more stock than you have feed to carry through and keep in good condition, but keep as many as you can feed well; the more you feed the better will be your crops, if you manage properly.

Before marketing your grain be sure and clean it well; it is more profitable to feed the tailings to your stock than to market them with your grain.

### See to the Bulbs.

Toward the end of September and during October is the proper season for planting hardy bulbs, such as crocus, hyacinths, tulips, crown imperial, narcissus and lilies. The earlier they are planted, the more time they have to make roots, and this insures a strong and early bloom the next season. When the planting is left until November, the frost soon penetrates the ground, and root-growing is suspended until spring, and they will not bloom until they have made a certain amount of root-growth. All garden bulbs require a good rich garden soil, but crude manure should never be allowed to come in contact with bulbs, as it is always injurious to them. It is not necessary to take up bulbs every season and replant them; they are really the better for being allowed to remain in the ground for two or three years. Lilies may remain for even four or five years.

In consequence of the severe winters it is not possible to leave Gladioli buds in the ground throughout the season, in this latitude, and they should be taken up and stored away. To do this take hold of the top of the plant to be lifted with one hand and with the other lift it out of the ground and shake off the adhering soil. If desired the variety should now be labeled. Care should be taken not to injure or break off the stalks above the bulbs. The plants thus taken up are spread out in a shed protected from rain or sun, and left until the tops are sufficiently dry. Then, taking care not to break the stalks, make them up into loose bundles, and hang them up in a cellar free from frost. Here they may be left undisturbed till about a week before planting in the spring, when the tops are cut away, the bulbs cleared of corns and roots, and separated. After a few days of rest the fresh breaks will be healed and the bulbs may be planted, each one being surrounded by a little clean sand.

Mr. John Snow, who with his father and sons, has been a butcher in Edinburgh for over 60 years, says:—Canadian farmers should send to Great Britain 3-year-old fatted animals, weighing from 1,350 to 1,450 lbs. (live weight), and yearling sheep that will weigh from 70 to 80 lbs. (dressed). These should be well fatted, with plenty of lean meat in the carcass, nicely covered with fat. He says our sheep are generally fat enough, but have a great lack of lean meat. He condemns the Leicester and Cotswold breeds, and says no first-class English butcher would have either, as they are too coarse in the grain, carry too much fat and too little lean meat. He thinks the breeds best suited to our use are Oxford, Shropshire, and South-down, in the order they are given, and recommends farmers to improve their stock by using the best pure-bred males. Where single farmers cannot afford this several should club together and own the animal jointly. Mr. Hall, who sells the largest number of Canadian cattle of any man in England, in his evidence before the Agricultural Commission, agrees with most of the above, but prefers the Shropshire to the Oxford as a mutton sheep for the English market, and urges upon the farmers the great necessity of high feeding and forcing their animals to early maturity. He discourages sending rams to England, but says the more good wethers the better. These gentlemen speak highly of Shorthorns and Angus Polls, but under no circumstances should grade males be used for stock purposes. Among the hogs, Mr. Hall gave preference to the middle-bred Yorkshire and the Berkshire; thought the best quality of pork was obtained from the Berkshires; did not think they grew as fast as the Yorkshire.



## English Letter, No. 18.

[FROM OUR OWN CORRESPONDENT.]

Liverpool, Sept. 1st, 1880.

On the 7th of last month there was a heavy fall of rain, which deluged the whole country, flooded the midlands, and seemed to administer the *coup de grace* to the hopes of the farmers for a good season. But brighter times were in store. After this heavy downpour, the weather cleared up, and for twenty-four days there has not been one drop of rain, but clear skies and hot suns have prevailed. The change came just in the nick of time. Much of the hay crop in the low lying districts had been rotted on the ground, and much more swept away by floods; but in the north a great breadth was still uncut, and this has been well got. The corn crops were in a bad way, but the wonderful weather of the last three weeks has worked almost a miracle, and a very moderate calculation places the harvest now being reaped over the whole length and breadth of the country at fully double the value of that of last year. Nor is this all. The potato disease, which was showing itself vigorously in many places, is checked, and the crop is proving one of the biggest and best on record. Turnips are also good; and beans and other field crops are of the best, whilst the after growth of grasses and clover is such as to give a position of great advantage to the dairy farmers, and feeders of stock for the fall markets. Yet another beneficial effect of the blazing hot weather is the killing off of the germs of the "fluke," which, in the early summer, owing to the excessive wet, were again developing and attacking the flocks in an alarming degree. I have just had a run through the heart of the country, from Liverpool in the north to Hastings, on the South Coast; and I must confess that I never enjoyed a ride more. There is a practical aspect in the beauty of a landscape waving with golden corn, or studded thick with gathered sheaves, which neither the fresh green of the spring nor the snowy mantle of the winter can give it. My journey south carried me through the region devoted to hop growing, and I am glad to learn that the Kent and Sussex hop growers are likely this year to have a full share of the general agricultural prosperity which seems now, in a substantial degree, to be assured.

I found, from returns which have appeared in various publications, that the harvest in Europe generally will be satisfactory. France will have about one-seventh more wheat than last year; the other crops are generally good, and it is said that the wine year will be a notable one in all the principal districts. In Austria there has been some falling off from the anticipated results, but still the total will be above the average. Italy has an unusually abundant harvest; and that of Germany, Eastern Prussia excepted, is fairly satisfactory. I have read fearful accounts of the agricultural disasters of that unhappy district. Prussia also has suffered, and will have much less grain for export than usual. You, of course, know far more of your own and of the States than I do; but the whole of Europe is coming to regard you and your neighbors as a sort of grain bank, equal to all drafts upon it; and though, of course, we prefer to have good crops of our own, it is very pleasant and reassuring to us to have you to fall back upon. The only problem that bothers me in the situation is this:—Supposing that you go on increasing your production of grain for the next five years, at the same rates as during the last few, and we in the meantime require less, owing to a succession of good harvests, which are due now, according to the law of average, what is to be done with the surplus produce? Will political economists please advise? It is well to look a little ahead.

I have already referred to the losses sustained during the transit of live cattle from American ports to this country. A certain mortality during heavy weather cannot well be avoided, but it is sometimes fearfully heavy. A correspondent of the *Daily News* writes as follows:—

"During the winter 1879 and 1880 public attention was drawn to the excessive mortality on board steamers bringing live cattle from America to this country. The following instances may be quoted: J. C. Stevenson, s., 1,276 tons, 378 cattle shipped, 357 deaths; Gleadowe, s., 1,431 tons, 175 cattle shipped, 157 deaths; Canopus, s., 1,818 tons, 266 cattle shipped, 219 deaths. The cause was stated to be the unusually rough weather in the Atlantic, which compelled the masters to keep ports and hatches closed for the safety of the ship. Now all is changed, the summer is here, and weather in the Atlantic during the last few weeks has been "dead calm." The ports and hatches of steamers could therefore have been constantly open, and there also would have been comparative freedom from excessive rolling. Notwithstanding these favorable circumstances two steamers have lately arrived at Liverpool from the United States, showing an excessive rate of mortality, viz.:—The *Eduardo*, s., 1,503 tons, 130 cattle shipped, 30 deaths; the *City of Bristol*, 1,802 tons, 460 cattle shipped, 127 deaths. I trust that the Board of Trade may cause strict inquiry to be made, as I do not hesitate to attribute these preventable losses to improper stowage and defective ventilation. The public has lately shown itself morbidly sensitive in the case of feeding the reptiles at the Zoological Gardens. What is the suffering there inflicted compared with that endured by numbers of pent up oxen whilst being slowly suffocated in the hold of a steamer whose temperature varies from 80 to 100 degrees? To prove that these losses are preventable I may add that some time ago I inspected a steamer that had brought cattle from America, and complained to the captain of the insufficiency of ventilation. He stated that it was the fault of the charterers, who, in reply to the remonstrances, said they would not incur the expense as the cattle were well insured, and if they died the insurance companies would have to pay."

How far these observations apply to the policy of the Canadian shippers in particular, I know not, but, if there be any truth in it at all, what a miserably short-sighted policy it is, to say nothing of its dishonesty. Not only is a large amount of valuable food lost, but the insurance companies, having to make good these terrific losses, are bound to keep up their rates of insurance, and shippers may rely upon it that ultimately they and their customers will be made to bear the loss, the bulk of which might be avoided through a little foresight and expenditure in the first instance.

Amongst the visitors to Canada this fall is a gentleman who, I think, deserves well of the Dominion, and of all who have an interest in it. I refer to Mr. Dyke, the Dominion agent at this port. I have on several occasions been brought professionally into contact with him; and, so far as I am competent to form an opinion, few men devote themselves to these duties more heartily than Mr. Dyke. He has represented Canadian interests in several countries of Europe, and in different capacities; but especially since he became agent at this port has he been able to do good service in watching the interests of Canadian trade. His activity and watchfulness undoubtedly contributed in a main degree to the exemption of Canada from the restrictions of the Contagious Diseases (animals) Act in regard to the import of live cattle; and in many other ways he has been able to make his post here one of substantial value to the whole Dominion. Mr. Dyke left on the 26th ult. for the purpose of making a tour through the Dominion, which will be extended as far west as the term of his leave of absence admits; and I need not say that his thorough and recent acquaintance with the great North-west will be of immense value to the department which he serves.

During Mr. Dyke's absence the Liverpool office will, I understand, be under the charge of Mr. Grahame, the energetic agent of the Dominion at Carlisle.

The "Allan" line of steamers is a household word in Canada, and therefore the death of Mr. James Allan, the founder of and senior partner in that enterprise, which occurred at Kilmoolie, N. B., on the 25th ult., will be an item of regret to your readers.

## Sheep Breeding.

At this season of the year permanent improvement can be made in the flock by the judicious selection of a male for the coming season, and no specific rule can be laid down to govern the farmer. Each must select with special reference to his own flock, and obtain such an animal as will counterbalance any defect which may exist in his flock; for instance, if your ewe shave good mutton qualities, but are deficient in wool, then select a male especially good in wool; and other faults must be similarly treated, always breeding from pure bred males of some variety or other. In choosing a variety, select one which is most suitable to the vicinity in which you live. A great error has existed among the Canadian farmers which has caused much disappointment and financial loss. Instead of improving their native stock for mutton and wool producing purposes, they have either kept unimproved stock, or else have sold all their native bred animals, and invested as extensively as their means would allow in pure bred stock, and have endeavored to become breeders of pure bred animals for stock purposes. In this a great many have failed, few men by nature or education being qualified for this calling, and with each of such failures an odium would arise against pure bred stock, when in fact the fault was entirely due to the fact of a man engaging in what he was not by nature or experience fitted for.

Our advice to the general farmer would be, improve your native stock by using nothing but pure bred animals, of good constitution and early maturity; also by liberal feeding and constant care.

Breed for the butcher and manufacturer only and leave the breeding of pure bred animals for stock purposes to men whom experience and nature has fitted for the business, and who can devote their life to the calling. When business is conducted in this manner, profits will be realized by both farmer and breeder, and the serious losses and disappointments which now occur will be avoided, and above all, the quality of the general stock of the country will be greatly improved. This error has existed not only among sheep, but among all varieties of farm stock.

For several years sheep in Ontario have attracted a great deal of attention, but never more than at the present time. There seems to be a revolution about to take place; the longwools have heretofore taken the lead, especially the Cotswolds, but the Downs are now coming forward and contesting for the first position. The Hampshire, Shropshire and the Southdown are the most promising among the varieties of Downs. The Hampshire and Shropshires being preferred to the Southdown for export to the English market by several good authorities, we believe they will be preferred by the general farmer, as they are larger than the Southdown.

The exportation of live stock to the English market is a means of bringing the Downs into popular favor, as their meat demands a higher price in the English market than that of the longwool varieties, and another influence in favor of the Downs is the present tariff, which is causing a greater yearly demand for home-grown wools. Canadian manufacturers in a majority of cases preferring the medium wools.

A farmer says that he has found from experience that six Cotswold sheep will not consume more food than a cow, and are more profitable. For a lamb of this breed, weighing 125 pounds, \$5.50 is obtained. He estimates that six ewes will produce eight lambs per annum and fifty pounds of wool.



## THE EXHIBITIONS.

## Toronto Industrial Exhibition.

On the 15th of September we entered the grounds. Near the gate the glass hen house was conspicuous. This was well patronized by visitors. It is very pleasing to see the hatching process progressing artificially. Hundreds of chickens were to be seen in every stage, from the first appearance of the beak to the fighting bird, that seized the crumb from its comrade, and would show fight for its possession.

The candy factory was next passed. This drew a crowd of watery-mouthed admirers, and pleased those that had leisure. The next most conspicuous attraction was the Agricultural Implement building. The first and most conspicuous machine to be seen was Haggert Bros' very handsome and substantial threshing machine in motion. It had the finish of a piece of drawing-room furniture, and was running as smoothly and almost as noiselessly as a river. We passed through the building, which was filled with useful machinery of various kinds in operation, the most curious of which were the binding harvesters. John Elliott & Sons was the first to be seen, Harris & Sons' was near to it, then Mr. John Watson's. All these machines have peculiar merits, but the Whitney Binder, made by the Toronto Reaper and Mower Company, drew a greater crowd around it than any other implement to be seen at the Exhibition. So thick were the people around it that although we went to the machine several times we did not get a good view of it on either of the two days we were there. This building has been increased in size since the last exhibition was held here. It was well filled with implements that did honor to our country, and are quite equal to any the world can produce. With the exception of the binding machines and the Imperial Harvester, made at the Globe Agricultural Works, London, Ont., we noticed no new implements here. Around this building are the agricultural engines and other implements. We have neither time or space to dilate on every implement that you have seen at every exhibition, and heard about again and again, but our particular aim is to give you information about any new or improved implements and machinery.

Mr. John Able, of Woodbridge, exhibited a new agricultural engine. It is constructed in such a manner that the steam, after passing through the first engine, is used immediately in an engine a little larger, the steam passing direct from one steam chest to the other, and both acting on the same piston rod at the same time. This Mr. Able claims will save a third of the fuel and water used. There was a trial of engines at the exhibition, each being supplied with a certain quantity of fuel and water and run so many hours with a certain weight on the band wheel. Mr. Able's new engine was not allowed to compete in the trial.

Mr. J. W. Mann & Co., of Brockville, exhibited four new implements that are deserving of attention. One is a drill, by which seed and fertilizers can be sown at the same time. The seed is put in one hopper and the fertilizer in another. Two separate tubes carry the seed and fertilizers to the earth, when they are covered and rolled in an agitator, consisting of revolving spikes, prevents the clogging of the fertilizer in the hopper, and a forced discharge conveys the seed and the fertilizer into the depositing tubes. This machine is drawn by one horse. The other machine is a seed attachment that can be placed on any hay rake. This sows all kinds of grain and grass seed broad-cast, and appeared to do its work well. A cloth was laid on the ground and the seeder drawn over it. We could see the manner in which it distributed the seed. It was tried with grass

seed and oats. It has a simple regulator that will gauge it to sow any kind or any desired quantity to the acre. Another implement was a grass seed sower. This was placed on a light wheel, like a wheel-barrow, and it is easily wheeled by one man. It has india-rubber cleaners inside, which distribute the seed through the machine evenly. They have also a drill for garden seeds, which we were much pleased with. Its mode of feeding and covering the seed appears very efficient. We consider these implements deserving the attention of farmers as much as any new implements we saw at the exhibition, and no doubt many will find the benefits of them the coming season. This is the first time these implements have been exhibited in Western Ontario. Mr. Mann also exhibited a potato planter. It is, we believe, the first manufactured in this Dominion. It is an American pattern, but it now does away with the necessity of importing them, as had previously been done.

Mr. John Bartlett, of Oshawa, exhibited what we consider the best implement we have ever seen for cutting the tops and roots off turnips. By drawing this implement through a field the turnips are topped and the roots cut off. The tops are left along in rows and the turnips are ready to be picked up and stored; it also cuts the tops off carrots and raises them ready to cart home. He also exhibited an implement for cultivating drilled wheat in spring. This implement has two sets of teeth, one wide the other narrow, one for use when the wheat is young and weedy, the other for loosening the ground between the drills when it is well up and the ground is hard. It is so arranged as to enable the operator to direct it between the rows, or to throw it out of gear at leisure. It is worked by one or two horses. It will be a long time before the slovenly farmer will invest in such an implement, but the best farmer will find a profitable use for it. A cart was on exhibition for spreading manure. The bottom of the cart is made in slots. These slots are gradually drawn to the end of the cart, when two revolving rollers, having spikes in them, take the manure from the end of the cart and evenly distributes it over the field. The display in the Machinery Hall was much the same as last year. The only novelty we noticed in this building was a grain crusher from the States. It is constructed with a series of concave steel plates, having shaped teeth something similar to very short saw teeth, or like deep file cuts. A series of revolving steel cog wheels revolve in this disk, and the corn is ground with astonishing rapidity. The proprietors claim to grind or crush it at the rate of forty-five barrels per hour, also a new mode of gumming saws and sharpening saw teeth. Messrs. Leslie & Son, of Leslieville, and Mr. John Grey, of Parkdale, nurserymen, each had a display grounds neatly laid out and planted with trees, shrubs and flowers.

The display in horticultural, dairy and agricultural buildings was very creditable. In the agricultural hall in particular we noticed a collection of agricultural products from Muskoka, conspicuous among which was a bundle of very fine heads of wheat, just about as fine as nature can produce grain. It was ticketed "Funstin-Bethune-Emporium Wheat." Good specimens of roots, grain, fruits, and even tobacco, were exhibited. It appeared to us remarkable that this display, large and extensive as it was, was collected and brought here at the expense of two individuals, one named S. Parrish, the other H. Mann, both of Huntsville, Muskoka.

The Ontario display of roots, particularly man-golds, was something astonishing. A very fine specimen of mammoth white rye was exhibited by C. Grey, of Thornbury. One individual was very busy selling a coarse, black-headed wheat, claiming

it to be the \$75,000 wheat spoken of by us as having been discovered at Guelph. Notwithstanding our informing him it was not that variety, as the other sample had a totally different head and superior quality of grain, he still maintained his erroneous opinion.

The main building was well filled with its usual display of the productions of our artisans and manufacturers. In some departments there were exhibits superior to those of other years, and in some there was not quite as large a display.

The Manitoba exhibit was displayed in the top story; many would not see it there, as the crowd, heat, dust and labor of ascending the steps rendered the approach to it inconvenient and unpleasant. The display of agricultural productions was fair, but the time that had elapsed since the specimens were procured, and the immature state in which they had been gathered, caused some to emit an odor that was not desirable. The Indian wigwam, the tents, the sled and the Indian relics and curiosities drew ten times more of the attention of visitors at the exhibition than the products of the soil. But it is well to give the public all the treat we can at these exhibitions, and the mere plod of the mind on grain, fruit, stock and machinery may well be varied with pleasure to the visitors and profit to the associations.

Outside of this building might be seen a buffalo in an enclosure; in another part of the grounds there were two young fawns. Both of these added to the attractiveness, but the great source of attraction was the horse ring; here the crowd assembled in thousands. The trials of speed and the hurdle jumping gave life and animation to the masses. Man is an active being, and delights to see motion and activity, whether in man or in any of the lower orders of animals. Next to man the horse is most admired, and the faster he goes and the greater the danger of breaking his neck, the larger will be the gathering, and the larger will be the receipts of the association be. The time is come when these exhibitions must be conducted on commercial principles; the public are no longer willing to support agricultural demonstrations in the same way as they support poor houses, asylums, and other charitable institutions.

On Wednesday evening there was a meeting of stockmen held in the Albion hotel. Among those in attendance were Mr. Porter, owner of the first prize Clyde stallion; Mr. Cheney, proprietor of many prize animals; Simon Beattie, the importer; Jno. Miller, R. Miller and W. Miller, Messrs. Holderness, McDougal, McCrae, Marsh, &c. The chairman briefly alluded to the stock business, and various speakers addressed the meeting. Congratulating and friendly remarks were made, and a very pleasant and orderly time was passed. The general expression was that the judges on stock had shown more care or better judgment at this exhibition than is generally the case. Hardly a breath of a complaint was heard about any decision. We never heard of so few complaints made before. The sheep, Cotswolds, Shropshires and Downs, were considered to have been the best ever exhibited in Canada. Mr. S. Beattie was pretty well oiled by several of the speakers. He was considered to have done more good to the country than any other importer, and as a man of business was esteemed highly honorable. Jno. Miller, sen., stated that Mr. Beattie had made one hundred thousand dollars in one year for Hon. H. M. Cochrane. On the question being put to Mr. B., he replied that Mr. Cochrane had cleared \$100,000 from imported animals purchased by him (Mr. B.) in one year. The Hon. D. Christie's name was mentioned. Mr. Jno. Miller said that there ought to be three letters prefixed to that name—Dis. His actions are loudly condemned, and he is considered to have done more injury to stockmen and the agricultural interest than any other man in Canada. Mr. Beattie stated that at the present time there were three hundred Herefords lying in quarantine.

We spent Thursday at the Exhibition, and returned to London in the evening. The Committee of Management deserve the thanks of the Torontonians for the very energetic and efficient manner in which this exhibition has been arranged and generally managed.



STOCK AT THE TORONTO INDUSTRIAL EXHIBITION.

The late Toronto Exhibition has been a great success, particularly in the displays of stock, which have hardly if ever, been excelled in the province.

The display of sheep, as a class, was never so good before in Canada, no really poor animals being present, but many of superior merit. In Cotswolds a large number were exhibited, and the quality never was better.

James Russell, of Richmond Hill, Ont., showed 24 head, which were very successful in the show ring, taking five firsts out of seven offered, including flock prize.

Other exhibitors showing some very nice specimens. The Leicester's were in large numbers and very good in quality. W. Whitlaw, of Guelph, showed 13 head, winning 1st on aged ewes, 3rd on aged rams, 2nd on yearling ewes, 3rd on ewe lambs and 2nd for pair fat wethers.

The Southdowns were well represented, being many in numbers and good in quality. H. H. Spencer, of Brooklyn showed 11 head, among which was his stock ram, which was bred by himself.

Robert Marsh, of Richmond Hill made a fine exhibit of 20 head, among which were two superior shearing ewes, bred by His Royal Highness the Prince of Wales, winning 1st in their class. These aged ewes were also of high merit.

The exhibit of Wool was not up to the standard; the notice of the prize was not given early enough in the season; most of the breeders had sold their wool before the prize was made known.

Dominion Agricultural Exhibition.

This was the name given to the Quebec Provincial Agricultural Exhibition this year. A grant of \$10,000 was specially made to it, besides the usual donations to agricultural societies.

We arrived in Montreal between 11 and 12 o'clock p. m. Every hotel was crowded. We went to the Intelligence Office to try to procure a bed, but after going to several places and finding all full, the best accommodation we could find at any of them was to sit on a chair in a passage.

The grounds are located in a fine, large, level space on the side of the mountain and convenient to the city. The Montrealers have erected a fine lot of buildings, which were handsomely decorated with flags.

The attendance of visitors at the Exhibition was very large; between 50 and 60 car loads of visitors from the States arrived in one day. The citizens had planned to give the visitors many additional attractions, such as the presence of the Governor-General, military and naval display, regatta, boat, horse and foot races, hurdle jumping, lacrosse matches, processions by daylight and torchlight, illuminations, fireworks and a balloon ascension.

were seen to take a pocket-book from a lady's pocket, and were arrested before the lady knew she had been robbed.

There was a good display of general stone wares in the main building. The best agricultural display consisted in horses. There were some fine Clydes, Percherons, French horses, racers, hunters, ponies and donkeys.

The Alderney stock were well represented. Many beautiful animals in this class were much admired.

The Ayrshires were much more numerous than any other class, and there was a strong competition in every instance for the honors; but for some reason or other three of the best herds in Quebec were not represented by a single animal.

From this point we presume our Quebec friends (or enemies) may take exception at our further description, for, from the name "Dominion Agricultural Exhibition," something better should be expected, but nevertheless we feel it our duty to write the facts as near as we could obtain them.

We did not see over a dozen Shorthorn cattle on the ground. We heard that only one person exhibited in this class. There were only 5 Gallows, 5 Devons, and 2 Herefords.

Cotswolds and Leicesters were very meagrely represented, and the quality was not at all equal to what would be seen at any exhibition in the West. There were a few very fine imported Southdowns. G. Whitefield, of Rougemont, exhibited 12 West Highland sheep. This class is not known at the western exhibitions.

Swine.—There were a few red pigs exhibited. These pigs have red hair and a red skin, but there being no ticket on the pens, and no catalogues furnished, we found it difficult to ascertain who were the owners of different exhibits, as we cannot speak the French fluently enough to understand what these people say, and we generally got a jerk of the shoulder when asking for information.

The only exhibitors of stock from Ontario that we met were Mr. Main, of Malton, and Mr. Featherston, of Trafalgar. They exhibited swine and poultry, and cleaned out the poor Frenchmen in a shameful manner. In these two classes alone they carried off 50 prizes, and took \$500 in prizes, besides making sales to the amount of \$200 more.

The Agricultural Hall was a good building, made of good lumber, and the bare lumber was the principal thing to be seen.

The dairy products were in this building, and made a very small display. The roots were a very small show. Grain was rather better represented. Manitoba had a good building in which to make its display. There was a good collection of the



agricultural products of that country, but the principal attraction was at one end of the building. This consisted of a museum of Indian relics, &c. Here the crowd assembled. This point took the attention of the exhibitors, to keep the people from making a raid and breaking the railings. Very little attention was paid to the agricultural products, compared to this part of the exhibit. One of the attendants informed us that he had never had so much trouble in his life as to keep the people moving on in order. One Member of Parliament threatened to thrash him, and fifty Frenchmen had done the same. Nothing could induce him to undergo such a time of abuse and trouble again.

The Americans from the Northern States exhibited a handsome railroad car, very tastefully and neatly fitted up with the products of their soil.

Fruits and flowers were not exhibited at this exhibition.

The exhibit in implements was very small.

The Massey manufacturing company, of Toronto, exhibited some of their highly finished work that was exhibited in Toronto.

Larnmouth & Sons, of Montreal, made the largest display of useful agricultural implements made by one exhibitor. Many of these implements are manufactured by Cossett & Bros., of Brockville, conspicuous among which is Cossett's hay rake and Cossett's one-horse reaper and mower.

Mr. Jas. Jeffrey, of the Empire Works at Petit Cote, P. Q., made the largest display of any of the machine manufacturers. Among his exhibits was a Paris Green sprinkler. This is a new invention. It sprinkles the Paris Green in a spray along one or two rows at a time as desired. It is wheeled along the drills, and it appeared to us the best machine we have yet seen for that purpose.

Gurney & Russell, of Dundas, were the most successful exhibitors we heard of in this department. They sold one car-load of reapers to Messrs. Moody & Sons, of Terrebonne, P. Q., and another car-load to Messrs. Baushman & Sons, of Sorrell, P. Q.

There always will be complainers, but when they are as numerous and as just as the following they should be made known and steps taken by other societies of less pretensions than that of a Dominion one to prevent repetitions of such a nature. Some of the following we saw, others we heard of. The first prize for butter was awarded to a poor miserable mess, resembling salve; the grain was entirely worked out of it, if it ever had any. Some said it was oleo-margarine, but as we saw it we consider oleo-margarine far superior to it.

In the Stock Department we were informed that the judges awarded two prizes for Essex pigs to white hogs and one to a spotted hog in England and in Western Ontario; we believe the Essex to be a black pig.

The exhibitors of implements informed us that the judges were entirely ignorant about implements, that they did not know the difference between a wheelbarrow and a mowing machine, and that their awards—so little did they know—that they were ashamed or dare not attach the prizes. Many of the awards were not made known even when the machines were pulled to pieces, ready to leave the ground, and the exhibition had been closed.

In the Grain Department we examined some of the grain and made inquiry of some French farmers. We could see what kind of oats these were. Taking a handful of the Angus oats they all informed us they were Canadian oats. We then took a handful from a bag of black tartarian. These were also Canadian oats. We then took a handful of Poland, and they were also Canadian oats. We believe that a French farmer knows oats from peas and oats from wheat, but we do not believe that one in a thousand can tell the right name of three varieties of oats, wheat or peas that might be shown to them; we know there are many pretended farmers in Ontario that cannot, but when in a crowd, as at a Dominion Exhibition, there will be many farmers that have read and observed that do not know what butter is, what a wheelbarrow is, what an Essex pig is, or what an oat is. Very few of the French farmers take a paper of any kind.

A. D. Cables, of Ottawa, formerly of New York, made the curt remark:—"This a Dominion Agricultural Exhibition. Why, here's the last day and no award of prizes. Why, in whiskey, images and pictures the prizes were awarded the second day, but agriculture was not attended to till the last. These French folks are 100 years behind

the age, and what is more they appear perfectly content to stay there. This is no place at all. Ontario is all there is of Canada anyway."

The reason the horticultural display was so small was because the Horticultural Society were holding a separate exhibition about two miles from the ground; this thousands of visitors did not see. We hear that attempts are to be made to elect more officers that take an interest in agriculture in future, and to maintain an annual exhibition.

**Ontario Provincial Agricultural Exhibition.**

We attended this Exhibition on Wednesday, the 29th of September. The exhibit on the whole evinced a sad falling off; most particularly was this noticeable in the machinery and implement department, many exhibitors being conspicuous by their absence. The attendance was not as good as in former years, and the loss of money from the lack of visitors must be met by an additional Government grant, and partially by the inhabitants of Hamilton. The expensive and inefficient Board of Management are wasting the money that should be applied to the agricultural interests of the country. Such exhibitions are unworthy to be called Provincial and agricultural. Such measures will not and can not be acceptable to the farmers of Canada. They want such measures as are really for their benefit, and not pretended to be so.

Notwithstanding the falling off in interest and the unsatisfactory and expensive management, there was a good exhibit of stock, many of the same animals being here that were shown at Toronto, of which we gave a full report. Hamilton retained its name for making the best display of fruit to be found in any part of the Dominion. We cannot say one word about the display of grain and vegetables, etc.; we went twice to the agricultural hall between the hours of 12 and 3 o'clock on Wednesday afternoon, but the building was closed from the inspection of visitors at that time; thus, after having this exhibition open for two long, expensive weeks, they were not ready to open the agricultural hall on that day, which was the last day but one, as Friday was of no account to visitors. This closing of parts of the exhibition at such a time, when the largest number of farmers attend, is deserving the attention of all who are in any way connected with agricultural exhibitions.

We should have a pattern to follow from a Provincial Exhibition, especially when the Board is so old, so numerous and so well paid. The Dominion Exhibition at Montreal evinced just about as bad a pattern to follow in their poultry department; a common township exhibition would be managed better in this respect. And yet there are a lot of citizens and exhibitors who desire to carry off the lion's share of the public money for prizes, who attempt to discourage and drive out of existence these useful township exhibitions, where far more good is done for the amount of money expended than at some of the larger monopolizing exhibitions.

The most astonishing thing we noticed was a first prize ticket placed on a wooden framed cultivator made by Mr. C. Thain, of Guelph. This is a cultivator that has been in use for many years, and notwithstanding the many new iron and steel implements, here the first prize ticket was placed. We remarked this to some farmers close by. The reply was made: "We have tried the different kinds, and there is no cultivator made equal to this one at the present time."

On entering the main building the most conspicuous and obtrusive display was a lot of coffins standing erect. In some exhibitions we have attended funeral equipments have been displayed in separate enclosures and in a less conspicuous manner. The musical instruments near by were

sounding their lively dancing airs. It brought to our memory the words of Tennyson: "Lives of great men all remind us," etc.; also, "In the midst of life," etc.

**Elgin Agricultural Exhibition.**

On the following day we went to the Elgin Agricultural Exhibition held at St. Thomas. This is about 90 miles from Hamilton and 20 from London. The inhabitants of this locality have, with a proper spirit of emulation, exerted themselves to establish an agricultural exhibition to represent the production and advancement of their favored, rich and productive locality; and well they succeeded. They erected a lot of creditable buildings, and they were literally crowded with the fine agricultural productions. To compare this County Exhibition with the display made in agricultural productions, such as grain, roots, fruits, flowers and vegetables, it literally eclipsed all that could be seen at the Dominion Exhibition, in these departments, in quality and quantity. There appeared to us to be from five to ten times as much to be seen and admired in the above-mentioned department as there was at the Dominion Exhibition. The farmers have all turned out to compete for the prizes. There was no display of empty pens and empty sheds, but the spirit of rivalry to obtain the honors was quite evident in every department. This is as it should be. The farmers here are real, live independent men, and know what good stock is, and keep it. In the implement department many agricultural implements were in motion, and in this department this exhibition threw the Dominion Exhibition entirely into the shade. Messrs. McKay and Pearson, nurserymen, both laid out a piece of ground, which they neatly planted with trees, shrubs, flowers, &c. Here you might find any quantity of good butter and good cheese to compete for the prizes. The display in the main building was very good, and beautifully arranged. The horses shown here attracted almost as much attention as the Governor's guard.

The stock may not have been quite as choice as the imported, high-bred and high-fad animals to be seen at the Dominion Exhibition, but for breeding and feeding quality, and for general utility, they were not much, if any, behind the best. The Marquis of Lorne favored the exhibition with the honor of his presence. He had an address read to him in the Gaelic language, and in his reply to the address he recommended the people to maintain and keep up that language.

A remarkable incident was evinced at this exhibition: Mr. John King, one of the great magnates of this exhibition, expressed in the strongest terms of disgust his disapprobation of a show being held on the exhibition grounds in the City of London, while at this exhibition it was difficult to pass through the grounds to the stock and implements as the whole space was blocked up with horses, showmen, salesmen, and money-taps to a greater extent than we have ever seen any exhibition blocked before.

The managers wished to give all the entertainment possible to visitors, and to do this they had boat races at Port Stanley on the last day. Great fun came on in an unexpected manner. A large stand was erected on the water for the ladies and other spectators, and so great was the crowd, or so weak was the building that in the midst of the sport the stand tumbled into the water, taking with it the crowd of ladies and gentlemen. This caused a good deal of fun to those who did not occupy the grand stand, but the poor ladies were fished out in a most deplorable plight, dripping from head to foot with mud and water, and no chance to change or dry themselves. Fortunately none were drowned.



**Dairymen's Association Exhibition.**

The cheese exhibition of the Dairymen's Association of Eastern and Western Ontario held at Hamilton was the largest exhibition that has ever taken place in Canada. There was some very close competition. The winner of the sweepstake prize of \$50 and the gold medal was Mr. Wm. Harris of Elora, who also took the first prize for the best white cheese made during the month of August. The maker of the cheese carried off the sweepstake prize for the best cheese made anywhere at the international dairy fair held in New York last December. The dairymen talk of an international dairy fair to be held in Montreal some time next year. The following is a list of the prize-winners:—H. S. Lossee, of Norwich, took first prize for best colored cheese made during the season; W. Waddell, of Corinth, second; C. J. Brown, Ingersoll, third. For best white cheese made during the season—W. Harris, of Elora, first prize; Chas. Wilson, Ingersoll, second; L. R. Richardson, third. For best colored made during the month of August—First prize, Jas. Elliott, Dereham; second W. Waddell, Corinth; third, A. Atchison, Listowel. For best white cheese made during the month of August—First prize, W. Hurley, Fullarton Corners; second—James, Nilestown; third, Jas. Elliott, Dereham. For best colored made in July—First prize, A. Atchison; second, W. Squire, of Logan; third, James Elliott, Dereham. For best white made in July—First, W. Hurley, of Fullarton Corners; second, — James, Nilestown; third, L. R. Richardson.

**Canadian Rye and Barley.**

A letter recently received in this city from Belgium by one of our foreign consuls, contained the following interesting paragraph: "There is a lively inquiry for rye at Antwerp, as there is very little in the warehouses. Canadian rye would bring here 24 francs (\$4.68) per 100 kilo. (A kilo is a fraction over 2 lbs.)" Many of our readers may not know that Canadian rye and barley is heavier and of better quality than that grown in the States and is worth an average of three cents per bushel more. Antwerp imports about 10,000,000 bushels of rye annually, and last year 300,000 bushels were taken from Montreal. She also imported last year 6,300,000 bushels of which were Canadian. If further encouragement is wanted to induce Canadians to sow heavy crops of both classes of cereals it is offered by the imports into Germany for 1879, which were obtained from official sources in this city, and which are as follows: Rye, 29,591,416 cwt.; wheat, 18,482,402 cwt.; barley, 6,441,146 cwt.; oats, 6,420,739 cwt.; maize, 4,083,808 cwt.

Letters received in this city show that merchants both in Germany and Belgium are fully aware of the excellence of the Canadian rye and barley, and our exports no doubt would have been much heavier in the past, if ocean vessels had not been driven from the St. Lawrence to New York by excessive pilotage, towage and port charges.—[Montreal Star.]

**Sheep versus Weeds.**

It is a matter not sufficiently known that sheep give material assistance in keeping land free from weeds. Many of the most pernicious weeds which farmers have to contend are greedily relished by sheep in their early or soft state, and ultimately eradicated in this way. It has constantly come under our observation that land stocked to a greater or less extent with sheep is comparatively free from weeds, and we fear this great advantage of sheep farming is not appreciated by agriculturists. It may also be observed that the younger the pastures are when the sheep are put on to graze the more effectual they will be in keeping in subjection and finally killing out the weeds.

**THE WHEAT MIDGE.**—The wheat midge or fly is a serious depredator, which farmers with care can in a large measure mitigate, although none of the remedies practiced have been sufficient to insure the growing wheat from its ravages. Whenever the screenings of the fanning mill abound with the yellow larvae of the midge, they should be burned or fed under cover to swine and poultry. If thrown out the larvae will eventually mature into a swarm of flies, that will exist at the expense of the wheat crops the following season. Those larvae that leave the wheat heads previous to harvest remain in the fields tightly wound up and fettered in their cocoons. They may be diminished if not wholly exterminated by turning the wheat stubble under with a plow and burying them to such depth that, in their efforts to work their way up to the surface the following June, they will become exhausted and perish.

**Poultry.****Hints to Beginners.**

As we are in the midst of fall shows at present, and some readers of the ADVOCATE may have taken a fancy to some species or strains in this department, a few words may not be out of place.

Any who intend purchasing this or any season had better invest in some work on poultry and carefully peruse its columns, and compare his yards and taste. For all breeds are not alike in their requirements and dispositions, any more than horses, cattle or sheep.

To an old experienced breeder all kinds will bear confinement moderately well, yet there are some species that are out of their element in close quarters. To a new beginner there are many mishaps to be endured that only experience can tell. Because one has only small compartments he need not be discouraged. The majority of our exhibition birds are the occupants of very small apartments, as most of our poultry fanciers are residents of towns or villages.

Mr. H. M. Thomas, one of our most extensive breeders, says:—"All that is required to keep a pair or trio of fowls healthy in a box four feet square the year round is to provide them with plenty of food, but just only what they will eat up readily, and plenty of pure water every day; give them some kind of green food, such as carrots, onions, turnips, apples, or a small bunch of clover tied up tight and suspended in a corner of their box. The boxes must be kept clean, and sprinkled with coarse sand." He says that for years he has had twenty or thirty of those boxes side by side in a building erected for the purpose; and some fifty boxes, two feet square, where birds were kept for exhibition.

After this experience one need not despair to venture on one or two pairs. I know of parties who have kept successfully and made profit on ten hens and a cock in a box six by four feet, after supplying the table with fresh eggs the year round; they had four more small boxes, where hens were setting, and reared twenty-six chicks until large enough to supply the table with young boilers. These were Brahmas, but I would not be afraid to venture Leghorns at the same risk, for I have had seven confined in a place about large enough to turn around in, and a small separate box, secluded at the side, to lay in, in which were found four or five eggs every day during their incarceration.

If one has eight or ten dollars to spare, he may build a neat little house with proper accommodations, with a lath run outside. The eaves need not be above four feet high, the roof double-boarded and a window in the gable end, and augur holes bored in above the window for ventilation.

If purchasers would ask breeders to mate their stock for breeding purposes they would do so, and could sell pairs which would give better satisfaction as breeders than their exhibition birds, for this reason: When breeders mate for exhibition they pair as nearly alike as possible, and probably both may have a defect in the same point; whereas, if mated for breeding, there would be a choice made to check the defect in the offspring. For instance, if the cock had a red ear lobe, which ought not to be so in Leghorns, then the hen should be pure white, and vice versa. Your progeny would be more apt to count higher than if mated for exhibition only.

If you have none or little experience, you had better be content with one trio (two hens and a cock) for one year. Then you will have some experience and have gained some knowledge by reading works on the subject. CONTRIBUTOR.

Rye is an inferior food for poultry; wheat is the best, corn is next, oats next, and rye is inferior to all these. If a mixture of all is fed to a flock, the corn will be taken first, then the wheat, and the oats and rye last; but a mixture of all these would be preferable to any one singly. Fowls should not be confined to grain food alone; some green vegetable food should be given with it.

**THE EXPORT OF APPLES.**—A firm in London, have written to the Hamilton emigration agent, Mr. John Smith, asking them to place them in communication with some of the principal apple growers and shippers of this Province, as they are anxious to establish business relations with houses in that branch of business. The present season, they say, promises to be favorable for the shipment of apples of good quality to England, the English apple crop being a very small one.

**The Apiary.****Preparation for Winter.**

This is the last opportunity of the season to caution bee-keepers to know the precise condition of their bees. Examine every colony thoroughly and critically. If they are short of winter stores, supply more this month; if you find a colony weak, double it up with the next weakest; if you find a colony queenless, give it a good queen immediately. Get your cellar ready this month for putting your bees in, should a cold snap catch them next month; see that it is dry; put in your ventilators now and prepare the windows for darkening at a moment's notice. If you conclude to winter out-of-doors, do your packing this month—the sooner the better, for rains are coming on, to be succeeded by cold, frosty nights. Leave nothing to chance; but perform your duty promptly, thoroughly. If you have fine stock, you prepare proper food and stabling for them; you are under as great obligations to provide for your bees, which are more helpless.—*American Bee Journal.*

**HONEY PLANTS.**—Wherever the apiarist may be located, he should observe the time of the year when a scarcity of honey is likely to occur, and provide, if possible, for this contingency, and by taking note of the few nectar yielding flowers at this time, will discover what could be cultivated to advantage. In our dry sandy soil, which is so easily affected by drouths, we fail to find a better honey plant than sweet clover (*Melilotus alba*), blooming from the middle of June until late in autumn. 'It is mete' that we should talk about these things now, for the seed is ripening, and if it is scattered now upon the highways, gravelly banks, and waste places generally, as it is self-sowing and not eaten by stock, the honey flow may be materially increased. One of Canada's great honey producers furnishes this seed to hands working along the railroads, who carry it in their pockets at all times, sowing it wherever they disturb the soil.

**The Skunk.**

There is a constant war waged by the farmers generally against the skunk, which is widely considered as the persistent enemy of the poultry and is blamed for destroying large numbers yearly, especially in the winter season, about the time the snow begins to disappear. Though this has long been considered a fact, we have recently seen them highly spoken of in some American papers of good authority. The following we extract from an exchange:

It is well-known by hop farmers that the skunk is an invaluable assistant in the hop yard in destroying the hop-worms and cut-worms which attack the tender vine; yet they have looked with indifference on the destructive warfare carried on against their friend and auxiliary, and which has been so nearly exterminated in some sections. The worms, not having the skunk preying upon them, have increased to such an alarming extent that the ground seems full of them, and a great cry has gone forth that the worms are eating up everything, for they not only attack hops, but corn, grain, grass and garden stuff alike.

A writer in the American Journal of Science, says this animal is very dangerous in some sections where it is often affected by a disease which renders its saliva so poisonous that its bite is more to be feared than that of the rattle-snake. He gives many instances where persons have been bitten, generally with fatal, and always with dangerous consequences.

Bee-keepers find this animal a decided injury where the hives are set near the ground. It is very fond of honey, and will eat bees readily. Its depredations are nearly always committed in the night. It will alarm the bees by scratching on the entrance to the hive, and as the insects cannot fly by night they become a ready prey, and are eaten in large numbers. This nuisance may be avoided by setting the hives up a distance from the ground.

The Indiana Farmer, commenting on some Bokhara clover growing on the experimental plots connected with the State Agricultural Society, says: "It bids fair to become a valuable addition to plants of this class in this part of the country; it is of thrifty growth, and can be cut down or fed down two or more times during a season. It is of fragrant odor and an excellent bee plant."



## Agriculture.

## Application of Manure.

It has been well established by chemical experiment, and we believe the fact has been no longer questioned, that stable or barnyard manure loses a large part of its fertilizing properties by fermenting in masses in a situation exposed to the influence of rain and sun. A partial decomposition takes place, and the gaseous and the most soluble part of the heap are either scattered by the winds or washed out by the rains. It is equally as well settled that if the fermentation takes place in the soil, these gaseous and soluble portions of the manure are absorbed by the earth and retained there until they are imbibed by the spongioles or mouths of the young crop plants, and that they essentially contribute to its growth and development. Now, if long, unfermented manure is spread upon the surface, these gaseous matters are lost; precisely as they are from the fermenting manure heap, for they are specifically lighter than atmospheric air, as is shown to the common observer in the steam which arises from the manure heap during the process of fermentation. The soluble parts will not, however, be lost, as in the case of the fermentation of the heap. But if the long manure is only partially covered by the harrow, it will only be partially fermented for the lack of moisture, an agent without which there could be no fermentation; and without fermentation, or cooking to some extent, the fertilizing matter in the manure cannot be taken up and assimilated by the plant.

If, on the other hand, the long and green manure is covered deep with the plough, it not only benefits by the gaseous matters which the earth absorbs, but it generates heat and benefits mechanically by rendering the soil more open and friable, and more permeable to warmth, air, and moisture; it also facilitates the decomposition of plant food, accelerates the growth, and increases product. Then, fermentation having exhausted its powers during the first season, and the cultivation of the hood crops (the only crop to which long dressing should be applied), the following year the plough turns up to the surface the carbonaceous matter of the manure which remains, and which is highly valuable to the crop which follows. An objection to this plan, and the only one we have ever heard, is, that if long manure is buried deep by the plough in preference to mixing it with the surface soil, the rain will carry down its fertilizing matters beyond the reach of the absorbents of the plants. This seems to be at first a plausible theory, but we doubt its correctness. If the fertilizing portions of the manure should, to any very great extent, be carried into the subsoil, the subsoil would itself become filled with fertility, and would only require to be brought up to the surface and exposed for a short time to the influence of the sun and rain to render it capable of supporting a luxuriant vegetation. We doubt if such a condition of the subsoil was ever found, and so far as our experience and observation go, all subsoils require long continued exposure at the surface and heavy manuring to render them fertile.

Our rule, therefore, is to bury unfermented manure with the plough, by which plan the major part of its good qualities is taken up and held by the soil, in readiness for the young crop. With fermented manures, on the other hand, or those which will undergo but slight fermentation, such as rotted dung, bone meal, &c., the tendency of which is to sink into the soil, we would apply a different rule. These subserve the purposes of agriculture better by blending them by means of the pulverizing harrow with the surface soil, where they will respond more promptly and act more efficiently than if buried deep by the plough. We are in favor, however, of having our dressing go through the fermenting process before it is applied to crops, but in order to save the gaseous portions, absorbent must be freely applied during the process of fermentation. Various substances will answer this purpose, such as ashes, dried muck, &c., but we have never found anything equal to the finely comminuted dust from a much-travelled road. The road is improved by its removal, and its value to the farmer can hardly be overestimated. To test its absorbing power, just throw a thin stratum into the privy vault and note how quickly noxious matters disappear. With the modern improvements of which most thrifty farmers have availed themselves, that of keeping the manure heap under cover, there is no longer any damage from rains, and the only but important duty that remains is to prevent waste during the process of fermentation.—[Ex.

## Concerning Clover.

While a large class of the farming community hold to the opinion that clover is better and more surely sown in the early spring, this work is much of it done during the late summer and autumn. A considerable proportion of the clover sown at all seasons is mixed with timothy and other grasses. When thus associated on mowing lots the full benefit of the clover is not realized in the majority of cases, because care was not observed to sow with it varieties which blossom at about the same time. The clover in consequence goes to seed before the later grasses are ready for the mowing machine. Even under these conditions the clover has not been without value. Its long tap roots have put the ground in condition to be readily acted upon by air and moisture. They have also added to its fertility. Among grasses which blossom simultaneously with clover, and therefore adapted to seeding with it on meadow lands, are meadow lands, are meadow fescue, perennial rye grass, Kentucky blue grass and Italian rye grass.

Clover makes an excellent crop when sown alone, especially on light, sandy soils. The practice of sowing clover with a grain crop is, however, a very common one. Concerning the desirability of this general custom there exists a wide diversity of opinion. Some cultivators contend that clover sown in the spring with grain succeeds better than that which is sown alone, because the grain grows quickly and shades the tender plants from the sun. Opponents to the practice contend with equal energy that the clover crop is liable to a greater risk of being lost when the grain is cut and the plants are finally exposed. Dr. Harlan recommends sowing buckwheat with clover when it is desired to grow only the latter. The buckwheat will afford shade while the clover is feeble, and if cut when in blossom and permitted to remain on the land will also mulch the clover and prove of great advantage to the crop. Whenever and however clover may be sown it is important that there exist considerable moisture in the surface soil at the surface soil at the time of sowing.

## Rich Soil vs. The Hessian Fly.

The Hessian fly is a feeble insect when it first comes into life, and a light frost will destroy it. This often happens, both in Spring and Fall, about the time the insect is transformed into the fly, which seems the only cause for escape of the wheat plant from universal attack both in Spring and Autumn. A sharp frost at the right time, when the fly is in its feeble state, will so decimate them that several years will pass before they again appear in such numbers as to be damaging. I have never known any remedy against the ravages of the insect after the fly has deposited the egg. The ova soon find itself encased within the leaves of the plant, near the root, where it cannot be reached without destroying the plant.

The only aid the wheat plant can have when attacked by the fly, is a strong and vigorous growth, which will enable it to overcome the enemy by throwing out new tillers as the old stalk is destroyed. On a rich, strong soil, and in a moist-growing season we frequently harvest a full crop when the insect has done much damage in the Fall. On light or weak soils, the fly is always destructive. The use of superphosphate applied at the time of seeding, has proved very beneficial in giving a stronger growth to overcome the attack of the insect. I have also seen a heavy and healthy growth of wheat where rich manure is applied, when on other portions of the same field not manured the crop was destroyed by the fly.—[F. P. R., N. Y. Tribune.

GRASSES AND MANURE.—Mr. Lawes, of Rothamstead, England, a noted agricultural experimenter, has been calling attention to a very interesting fact in regard to the grasses. They are like so many freebooters, and seize all manorial wealth with eager avidity, each according to its own nature. It is encouraging to know that the best grasses win the day when supplied with plenty of top dressing, whilst the inferior kinds prosper most on inferior soil and under starvation management. The only exception to this is in the case of sewage manure, which increases the coarser grasses most. Mr. Lawes asserts that the ultimate herbage depends not so much on the description of seed sown, as on the sort of manure and management given afterward. It would seem, therefore, that the excellence of the permanent meadows and pastures of Britain is the result, not so much of climate, as of good husbandry. The British farmer top-dresses his grass lands, a practice deemed wholly unnecessary by the average Canadian farmer.

## Disposing of the Root Crop.

There is not an animal on the farm but may be kept in the best of health and condition on roots, with a small portion of dry feed. Horses do well on a peck twice a day, chopped and mixed with chaffed hay. If hard worked a quart of meal of any kind or bran added will complete a sufficient ration. Cows, oxen, calves and feeding heaves flourish well on roots as the largest part of their diet. The yellow fleshed mangels give a rich color and no evil flavor to milk or cream, and for winter dairying they are indispensable. A peck of roots, with a quart of oil cake meal and bran, mixed in equal parts, given twice a day with dry hay or fodder, will keep cows well up to their milk. Sheep may be fed similarly in proportion, except ewes heavy in lamb, which should be fed out small rations, not over a quart at each half daily feed. Pigs thrive wonderfully on mangels and sugar beets. Geese will live wholly on them chopped up fine. Poultry will peck out roots and devour them completely. Roots, corn and hay, will keep the whole farm stock going in the best order, and as one acre of roots will subsist one cow for three years or twenty-five cows for six weeks, and four acres will supply twenty-five cows for six months, what other crop can pay so well or be so easily grown for the amount of food procured?—[Ex.

The Muck Manual says that one load of cow manure mixed with one load of dirt or muck gives two loads of manure equal to cow manure. As soon as my fall work was done, carting muck was the principal job before us. The barnyard received a large number of loads of muck and leaves. The stable manure is not suffered to accumulate more than two or three days before it is incorporated with muck. The outlet of the house drain is contributing its share toward making a few loads of valuable manure. The water-closet is a valuable auxiliary in composting muck. We have one muck heap near the house that takes all the soap-suds and other refuse beneficial as manure. Muck is a great absorbent—it fixes all the volatile ingredients of the manure pile that escape from the manure heap by improper treatment. We carried along the ordinary farm work and drew out over 200 loads of muck and leaves put in large heaps in fields mixed with sheep manure from sheep sheds. All farmers know that this is a most valuable manure. It is perfectly astonishing the amount of work any farmer may do of this sort in the course of the season.

AGRICULTURAL SCHOOL FARMS.—Professor Baldwin, Assistant Royal Agricultural Society, says he thinks that use could be made of the Agricultural School farms for raising new varieties of farm products, as potatoes. It was very difficult to make experiments to pay, but if they were gone into they should be kept separate from the ordinary work of those farms, as a model farm that did not show a proper balance sheet was not fulfilling its object.

It is stated by the Montreal Star that the average annual consumption of hemlock bark in Canada, for tanning purposes, is 120,000 cords, and nearly 80,000 cords are exported annually to the States, the exports, in fact, in 1878, amounting to 106,374 cords, valued at \$360,259. The Secretary of the Montreal Board of Trade estimates that about a million and a quarter of trees are cut down every year to supply the consumptive and export demand. At that rate our hemlock forests will be completely destroyed in less than 15 years, for besides our shipments to the States, about 16,000 barrels of extract of hemlock bark are annually exported to England. The trades most deeply interested in the preservation of hemlock forests are moving in the direction of legislative restriction. Efforts are to be made at the next session of Parliament to induce the Government to impose an export duty on all bark leaving Canada. Prodigious waste is indicated in the statement made by the Star that these trees are felled in immense quantities in the Eastern Townships, and allowed to rot on the ground after the bark is cut off them.

The last Ontario Gazette contains applications for the incorporation of the Fonthill Canning and Fruit Drying Company, with a capital of \$10,000.

A course of teaching in agriculture has been ordered by the French Government into every primary school of that country.

In Brantford the Sorghum factory is soon to be in operation.



**Virginia Creeper.**

Many people in different parts of Canada, particularly in Quebec, in some parts of the Maritime Provinces and in Manitoba, are not aware how easily and cheaply they can add beauty and comfort to their homes by very little care.

When passing by the dwellings of the inhabitants of that northern city, St. Paul's, Minnesota, no trees, plants or shrubs attracted our admiration more than the beautiful and graceful festoons of Virginia Creepers that enriched the dwellings of that city. The frosts of that northern State were not too severe to prevent its thriving there, we thought, in greater grandeur and perfection than we had ever seen it before. Again in Woodstock, New Brunswick, we noticed it thriving with as much grace and beauty as in any other part. We all know it thrives well in Ontario, and most people have remarked its beauty; but there are many, many farmers in Ontario who should have some of it growing about their best-looking dwellings. We well know that every lady will aid us to satisfy the desire of ornamenting their own homes and those of their neighbors. As this plant will thrive in the most northern parts of our Dominion that we have ever visited, we can safely recommend it to every one that has not procured it.

There are six varieties of this Creeper; the best variety has little gummy tendons or feet that attach themselves to buildings or trees, and require no railing to hold them up. Mr. Sharp, of Woodstock, N. B., has command of a large quantity of this, the best kind of Virginia Creeper, which he sells at 50c. a plant. We have made arrangements for a quantity, which we purpose to supply in the following manner: We will send one root free to any old subscriber, post-paid, to any

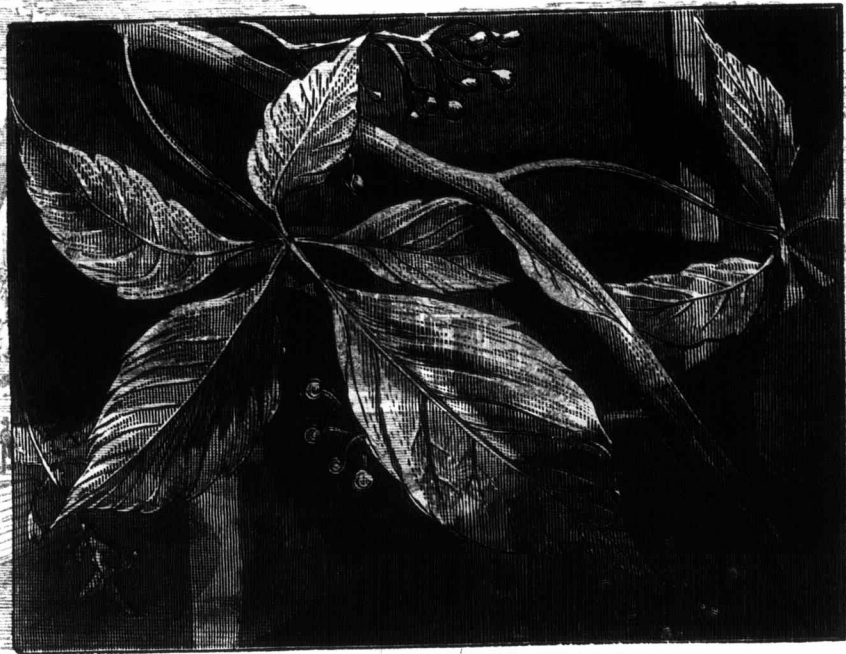
down and waving gracefully in the wind. In another part of the country we noticed a beautiful arbor in which a large party could sit and dine, elegantly covered and draped with it.

Any one of our readers may profit by the present rough designs we illustrate to show how cheaply such elaborate decorations can be made; any rough wood will answer for the frames. We also give you an illustration of the leaf, and the little fruit-like balls or feet which gum themselves to the walls. In the autumn, after the first tinge of frost, the rich verdant green of the leaves is turned to resemble all the bright colors of the brightest rain-

fitable lessons from the hospitable New Brunswickers; while they and every person living in any of the sister provinces, or on this continent, may profit greatly by the lesson we are about to impart, that is, if they have any real desire to advance the interest of agriculture, horticulture, or the improvement of themselves, their descendants or the country in which they reside.

We called at the house of Mr. Peeterson, one of the leading members of this colony. We found him to be a well-informed, gentlemanly person; he could speak English fluently and well. His house and grounds were the picture of neatness and taste. A neat lawn was in front of the house; trees and shrubs were planted; two rustic seats were on the grounds; a very neat rustic fence enclosed the lawn and grounds, and this in the backwoods of N. B. We were so much astonished at this that we made a rough sketch of the premises, which our artist has very much improved, because our drawings are of a somewhat nature (see No. 1, next page). We expressed our surprise at such a sight to Mr. Peeterson. He invited us to go with him to see the school house, which we did. This was a small log building, which on entering we found to be beautifully and tastefully decorated with evergreens and flowers.

[Mr. Peeterson then informed us of his great and noble plan that he wished to introduce into this settlement. It is this: To make the



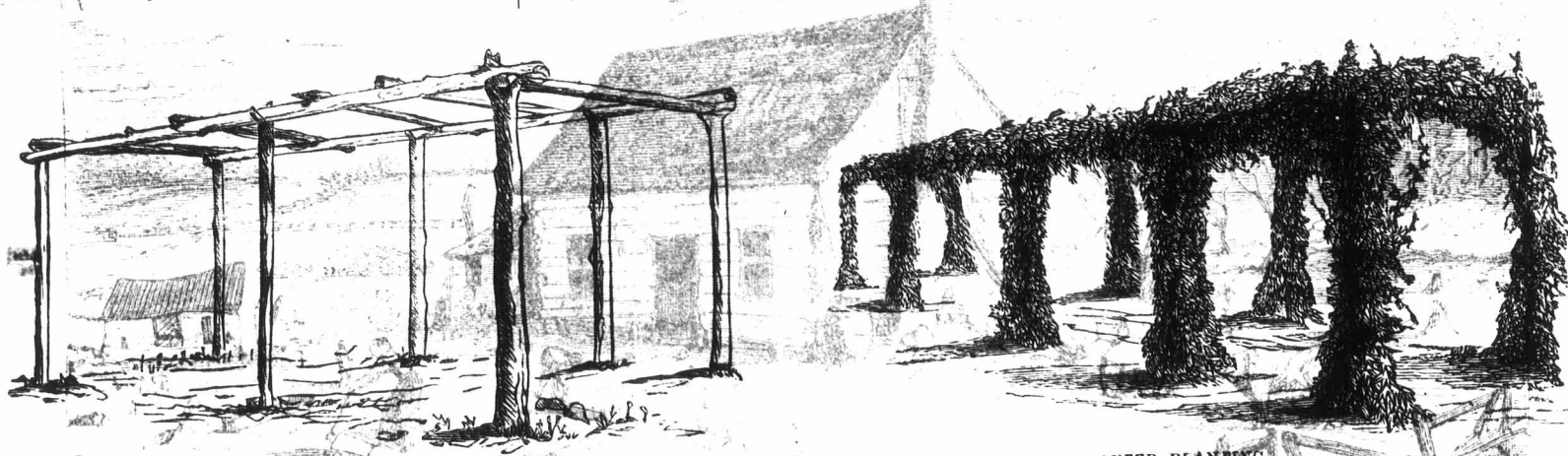
LEAF OF VIRGINIA CREEPER.

Just try and send one new subscriber, and adopt some one of the plans to add more grace and beauty to your home.

**On the Wing.**

NEW DENMARK, N. B.—A MOST VALUABLE LESSON. New Denmark is the name given to a settlement of some 500 Danish emigrants, who settled five years ago about 230 miles north-west of St. John,

school grounds a garden and arboratum, to plant around the school all kinds of trees and flowers that would grow in that locality. He said this plan would give the children a knowledge of trees and plants that could not be so well imparted in any other way; it was the stepping-stone to agriculture, fruit and floriculture, and when the children grew up they would always have a love and taste for



ROUGH DESIGN BEFORE PLANTING.

AFTER PLANTING.

post office in the Dominion, for one new subscriber; \$1 for the subscription must accompany the order. Any person can easily obtain one new subscriber. Most of you know how beautiful and cool the Virginia Creeper makes a house; but very few of you know what a most handsome ornament it makes on a lawn in front of a house. When on Euclid Avenue, in Cleveland, Ohio, the past summer, the use of this plant as an ornament was more conspicuously brought before our notice than it ever had been. In one place we noticed a cross had been erected and a Virginia Creeper planted by it; this stood about 20 feet high, and the wood was completely covered, the long tendrils hanging

New Brunswick. It is about 7 miles from the St. John River, and 7 miles from Grand Falls, a station on the M. E. R. R. The land is tolerably well timbered with beech, maple, birch, etc.; the soil is rather of a light and somewhat stony and porous nature. The inhabitants have already adopted the American plan of compelling people to confine their stock, so many of the fields have no fence. They have settled with a determination to make themselves homes, and have worked with an energy that deserves success, although many condemn the quality of the soil and the rigor of the climate of New Brunswick.

We in the sister provinces may learn many pro-

beauty, order and refinement, and Botany would then be better known.

Reader, can you imagine the benefits of such a plan? Schoolmaster, what do you know of Botany, of trees, fruits or plants? School trustees, councillors or members of Parliament, have any of you brought forth or attempted to introduce any plan that would do so much good? As you may probably suppose, we said to Mr. Peeterson: "The children would destroy the trees and plants." He replied: "They do not; they love them; they take care of them; they take a pleasure in seeing them look nice; the children cultivate them and delight to do it." We asked if he had ever seen



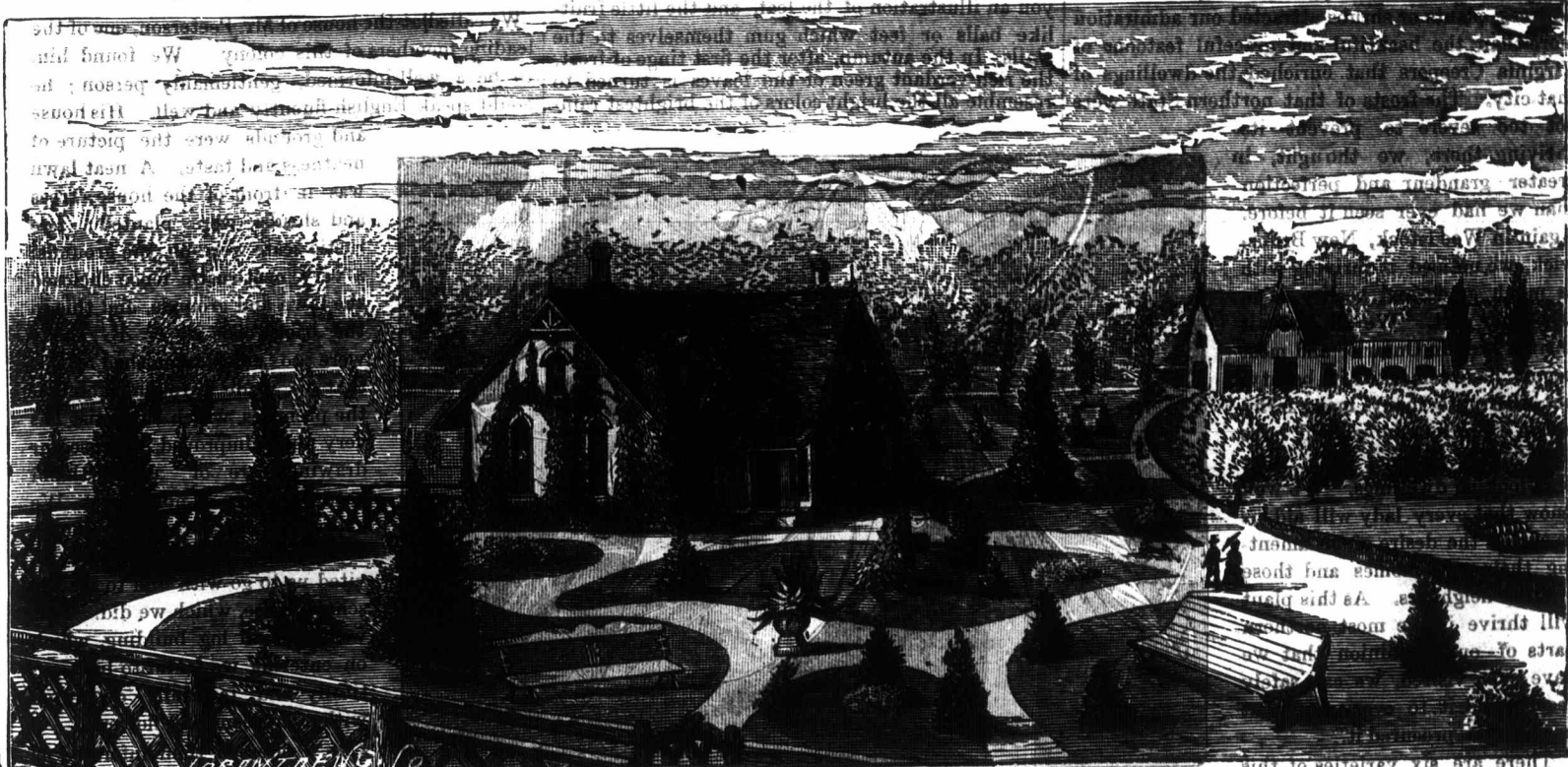
the plan carried out; he said that he had in his native village, and it answered admirably.

Is there one or more of our readers who will try and make one step toward introducing this plan? Could not more good be done in this way than any other towards imparting agricultural knowledge? This plan might, without any cost, be adopted, if

We waited impatiently at the door, but our guide said, "Do not be in a hurry, they will be ready soon." Presently we were invited into the house. Everything was neat and clean, and his reverence had dressed himself in his very becoming black cloth suit. He was a well-informed, elderly gentleman, and spoke in tolerably good English; he was very hospitable, and a sound, intelligent person. His broad, hard hands showed plainly that

been killed by the frost affecting the roots before they were delivered to the purchasers. We think there should be protection against country people being so terribly robbed as many are by agents who really obtain signatures under false statements.

**The Contrast.**  
Our artist represents in No. 2 a few of the reminiscences of travel in the Province of Quebec.



NO. 1.—THE RESIDENCE OF MR. PEETERSON, NEW DENMARK, NEW BRUNSWICK.



NO. 2.—THE RESIDENCE OF MR. SLOTHFUL.

properly introduced and encouraged. Who will aid us in attempting to introduce the plan? We shall be happy to hear from any one that will really take up this plan and endeavor to carry it out in any one school house. We will lend the aid of this journal and our good intentions to those who will introduce the system.

They have a nice church erected in this settlement. We called to see the minister. His house—a small log one among the stumps—had a neat little well-kept lawn and flowers in front of it.

he did not eat the bread of idleness. The inhabitants of New Denmark generally wore good, useful home-made cloth, and wooden clogs or shoes.

We went into another garden where different kinds of vegetables were growing. An orchard had been planted, but despite all the watering and nursing that care could give, every tree was dead. And yet these poor Dames were compelled to pay for these trees that had been sold to them as good ones at an enormous price, about 50c. each. This was most probably done by some of those unprincipled agents, and no doubt these trees had

and some other parts out of Quebec. Perhaps some of our readers may find in the illustration a "cap that fits;" if they do, they are welcome to wear it. Are there any of you that have been in the habit of attending to politics and other people's business, and leaving your wives at home to split the wood or do similar chores?

Have you climbers about your house, a good, neat approach, and a well kept orchard? Are your implements and cattle both summered and wintered out of doors? Which place belongs to you, No. 1 or No. 2?



### Muskoka and Parry Sound.

The Agricultural Commissioners met in Bracebridge to investigate the state of agriculture and the agricultural prospects of the Muskoka and Parry Sound districts. The testimony given is the experience of persons who have been in the district for a long time, some of them twenty years. We give their statements condensed:—

The soil is generally a sandy loam, varying from light to heavy and in places rocky. Frequently the rocks protrude above the surface, but often are covered with a few feet of earth. In all parts of the district there appears to be an abundant supply of good water, both for household and stock purposes. As a rule the climate is a shade severer than throughout western Ontario. One great detriment to the country in the most remote parts, is the lack of available communication with the outside world; but this difficulty is being done away with as rapidly as can be expected. There will soon be plenty of railways and good transportation roads. Agricultural industry seems to be taking the form of mixed husbandry, and the people collect wealth as a rule slowly, as they begin with small means and are not able to do much in the way of fattening cattle or sheep raising at first. Sheep grazing is considered profitable, and is likely to become a feature of the district. The severe cold acts unfavorably upon the pure Cotswold, but Leicesters do well; Southdowns are also raised, and, as in other parts of Ontario, the breeds are frequently crossed, but in few instances has breeding been brought to a high state of perfection. The same may be said of cattle raising. The price of common sheep averages about the same as in Middlesex, while that of wool ranges from twenty-five to thirty cents per lb. Durham cattle are not yet in high favor in the district, not being able to "rough it" so well as the Devons or Herefords. Every year more use is made of the Shorthorns to improve the stock, and crosses with the two breeds above named are quite common, and bring about good results in cattle. Stall breeding does not appear to be commonly practiced among the farmers, but the pasturage is excellent, grass being plentiful and the water supply first-class. Neither dairying nor cheese making are carried on in an extensive or systematic scale. The prices are about the same as in other parts of the province. No extra attention is paid to the breeding of hogs. The district produces large yields of hay and clover, the varieties grown of the latter being the common red and the Alsike. The growth of oats and peas is extensive, while wheat and corn, although some years very profitable crops, are not generally so, more especially the former. Wheat suffers from blight and winter-killing. The yield averages from 15 to 30 bushels per acre. Oats average in yield from 30 to 60 bushels per acre, and sell for about 50 cents per bushel. The bug so troublesome in western Ontario does not seem to affect to any extent the Muskoka peas, which yield on an average 40 bushels per acre. Barley is grown with fair results. Root crops are cultivated with splendid success, nearly all field varieties being produced. Per acre turnips yield from 400 to 1,000 bushels, and one witness stated that on an acre he had raised 1,000 bushels of carrots. Potatoes produce about 300 bushels per acre, and sell at from 60 to 70 cents. Very little has yet been done by way of fruit cultivation, only a few apple orchards having been planted. Grapes appear to be grown, of the very hardy varieties, as well as some of the small fruits. The district is not likely to take much prominence as a fruit-growing country, although, with proper cultivation, fair success may be obtained. Several witnesses gave the following rotation of crops: 1st, wheat or turnips, barley, oats, potatoes, peas, corn, and last oats, with which it is usual to seed down. The grasshoppers prove a source of annoyance to the people, injuring very seriously during certain seasons some of the crops, but as the land becomes cleared and well cultivated they disappear. Among the factories claiming attention are the woollen mills of Bracebridge, where the trade is gradually increasing in the production of tweeds, yarns and blankets. One manufacturer has worked up during the present season upwards of 15,000 lbs. of wool. Emigration proceeds at a fair pace, considering the advantages that are held out in other places, and its development is slow. However, as railways are opened up and good roads built, Muskoka will progress, and in time take at least a fair position among the other parts of Ontario.

### Clover Root Borer.

In a late number, the American Entomologist describes the clover-root borer which has caused considerable loss in central New York. Some complaints of injury to clover in the West have been heard occasionally, but the trouble was thought to be occasioned by the white grub, although in some cases investigation failed to mark that insect as the culprit. Possibly it may have been the insects here described. At all events the information given is not without interest. It was in reply to a correspondent at Ithaca. Prof. Riley says:

I have found the insect in all three stages of larva, pupa and adult up to the time of frost, though the perfect beetles at this season very greatly predominate. The insect hibernates in any of these three stages, and continues propagating as soon as spring opens, the beetles issuing from the ground and pairing during the early spring months. The female then instinctively bores into the crown of the root, eating a pretty large cavity, wherein she deposits from four to six pale, whitish, elliptical eggs. These hatch in about a week, and the young larvae at first feed in the cavity made by the parent. After a few days, however, they begin to burrow downward, extending to the different branches of the root. The galleries made in burrowing run pretty regularly along the axis of the roots, and are filled with brown excrement. The pupa is formed in a smooth cavity, generally at the end of one of these burrows, and may be found in small numbers as early as September.

It is the custom in Western New York to sow the clover in spring on ground already sown to fall wheat. This is generally done while the snow is yet on the ground or while the frost is disappearing, one peck of seed being used to the acre. The clover is allowed to go to seed in the fall, and usually produces but little. During the second year one crop of hay and a crop of seed are obtained. It is during this second year that the injury of the Hylesinus is most observed.

No experiments have yet been made with a view of preventing the injuries of this clover pest, and no other mode of prevention suggests itself to my mind than the plowing under of the clover in the spring of the second year, if the presence of the beetle is observed.

In order to ascertain exactly the shrinkage wheat undergoes when held in a bin over winter, an interesting experiment has been tried at the Michigan Agricultural College Farm, and is reported as follows:—A large sack was prepared and filled with 200 lbs. of wheat, accurately weighed. On November 12, 1879, this was placed in a grain bin in the barn; and, in order that the grain in the sack might fairly represent the average of that in the bin (the bin held 150 bushels) the sack of wheat was sunk in the grain as far as possible—say to an average depth of about two feet. In this position it has remained for six months, or until May 12, when it was brought forth and again weighed. The second weighing showed a slight increase on that of six months before, the weight being 200 pounds plus a fraction of one pound. This result was most unexpected to us, and we can only conclude from it that during such seasons as those of 1879-80 wheat shrinks by evaporation none at all. The shrinkage so often complained of by millers and others, doubtless comes chiefly from "rattage," leaks in the granary, and other like obvious sources of waste. The slight increase in weight of this sack of grain is perhaps attributable to a slight variation in the scales used in weighing. It is an interesting fact that this same sack, when exposed to the rays of the sun at a temperature of 85 degrees, from 11:30 a. m. till 3 p. m., shrunk exactly one half-pound.

S. R. M. writes thus in the Germantown Telegraph, of the lasting merits of hog manure: "Experience has shown me that when strawberries are grown on sandy soil, with plenty of water applied during the fruiting season (nearly up to ripening), there is no manure equal to that of hogs bedded on forest leaves. In fact, for roses, flowering-shrubs in general, German roots, and all the little curiosities of a pleasure-garden, it is the most congenial and most enduring manure I ever tried; and my experience was with a single heavy application, which at the end of six years was certainly still in its prime. The soil was always sweet and clean, while the fruit and flowers were the wonder of all visitors. I astonished old gardeners, and produced finer plants than they, and at seasons when they had none ready for market."

### Food for Milch Cows.

DRIED BREWERS' GRAINS VERSUS FERMENTED BREWERS' GRAINS.

Dr. A. S. Heath in a paper read before the Farmers' Club, Cooper Union, on the subject of dried brewers' grains as food for milch cows said: "The quantity and quality of milk is more dependent upon the albuminoids than upon the starchy element of the food consumed by the cow. The albuminoids are the flesh-making and the starch is the respiratory or heat-making elements of food. Professor L. B. Arnold says: 'The quantity of milk varies pretty nearly with the supply of flesh-producing food when other circumstances are equal.'

"Fresh and neat brewers' grains, when perfectly sweet, contain too much water for the quantity of starch in them, and the milk made from them by the cow is too watery and thin. Milk must have good sound albuminoids with a proper proportion of starch to be perfect and rich and good. In advocating the use of one of the most valuable milk-producing foods for cows I leave out of sight, out of smell and out of taste the fermented, soured, offensive and disgusting brewers' grains as formerly used to the detriment of milk and speak only of a food prepared from the fresh grains when taken hot from the tub and spread upon slats covered with a coarse cotton cloth, placed over a great heat, till they are as dry as the barley was before it was malted. This is as sweet and sound as the original barley, minus 40 per cent. of starch, and can be carried in three-bushel bags to any distance and kept perfectly sweet and sound for any length of time and at one-third of the freight of the wet grains. There is no spirit nor acid in the fresh-dried grains, but they are sweet and fragrant and eaten with avidity by cows.

"But you ask how will you supply the normal quantity of starch? I answer, by adding equal parts of wheat bran to the dried grains and you have: starch, 78; albuminoids, 29. This is admirable food for milk, and, when fed as a semislop, by adding it to a bran mash as given with roots, you have cheap and sound milk-making food.

"For road horses in hot weather grains thus treated will give strength, but will not produce heat and will not cause near as much sweating as oats and far less than corn. In winter, a little corn meal may be added to the grains and wheat bran, as it contains from 8 to 9 per cent. of oil, which helps to keep up the bodily or animal heat. The small potatoes should be alternated with the dry grains, both for variety and for supplying starch and water. Potatoes are more nutritious than is supposed. Though they contain 75 per cent. of water, yet the dry nutritious matter is rich in food elements—thus, of starch 62, sugar and gum 15, and protein or flesh-making compounds 9 per cent. It will be remembered that per acre potatoes are the most valuable crop of the soil. 'The fresh grains, directly weighed from the brewers' tubs, weigh 56 pounds per bushel, and when dried weigh 16 pounds, or three and a half times less than the wet grains, saving over two-thirds of the freight.'

CURING BEEF BY INJECTING BRINE.—The infiltration system of salting beef by filling the blood-vessels with brine, is attracting considerable attention in Australia. In some recent experiments at Brisbane, bullocks were treated as follows:—At the instant of killing, animal's heart was laid bare, and incisions were made in both ventricles. Into the orifice of the left ventricle a pipe was inserted, and a stream of weak brine was forced through the blood-vessels, washing out all the blood. Pressure was obtained by having the brine in an elevated tank. After the expulsion of the blood the right ventricle was closed by a clamp, and stronger brine was forced in until all the blood-vessels were full. In this way the distribution of the brine through every part of the meat is said to be complete and the cutting perfect. It is proposed to send to the Sydney Exhibition a whole bullock thus preserved.

No wooden vessel should be used in milking, as the wood absorbs milk, which sours in the pores and there curdles, and every particle of curdled milk, whether effected by rennet or by acidity, like the leaven of yeast, is an active agent for souring other milk. As curd of milk is hardened by heat and made insoluble, dairy utensils should first be washed with cold water and soap, and when thoroughly well cleaned they may then be scalded. Curd is dissolved by alkali, and the free alkali of the soap not only removes the grease of all milk, but also any particles of milk which by any accident may have been retained in a crevice or corner, and there soured or curdled.



## Dairy.

## Small Dairies.

BY PROF. L. B. ARNOLD.

While there are some large and fine dairies scattered through all the dairying districts, the dairymen of Ontario—and the same is true in many places in the States—are largely in the habit of keeping only a few cows for sending milk to the factories, the main business of the farm being devoted to growing grain, wool, horses or other stock. Where factories, receiving the milk of 1,000 cows, have it supplied by from 80 to 130 patrons, the dairies average only from seven to twelve cows, and a large territory must be traveled over to collect the milk. These little dairies are an unfortunate item in the dairy interests of the Province. They are quite apt to be so much neglected as to seriously depress their annual returns, and to make the production of the milk, of which butter and cheese are to be made, cost more than it ought to, or need to. To assent to the fact that it costs more to produce milk from a small dairy than it does from a large one, requires but little thought from the average farmer. It is evident also that it costs more, proportionately, to deliver small messes of milk to a factory than it does large ones, and if made into butter or cheese at home it costs more relatively to manufacture the milk from a few than from a large number of cows. It must be plain, then, that if dairying is entered into as a business of the farm, it will pay better for the proprietor to keep as many cows as his farm can well carry, or as his help can manage. There is a marked advantage in making dairying, when undertaken at all, a prominent feature in the farm management. When the farmer's attention is divided between dairying and raising, wool, horses and beef, the dairy, especially if a small one, is very sure to be but indifferently looked after. Where but five or six cows are kept on a large farm the average yearly yield of milk per cow is almost sure to be low. The dairy not occupying much of the farmer's thought, he is not careful enough in the selection of cows. Poor ones are permitted to remain in his herd for years perhaps, while none but the best should be retained, simply because he does not give them attention enough to discover or appreciate the difference between good ones and poor ones.

If, from drought or miscalculation in providing, the food supply of his stock is scant, the cows being little thought of will very likely be the first to suffer, whereas they should be the very last. Where milk is not more a specialty, a falling off in the yield is generally but little heeded, and the cows dry down, to continue so for the remainder of the season. Provision is seldom made in such cases against a long drought by preparing a field for fodder, corn, or other green soiling crop, an item which would be strictly attended to if milk was considered an important element in the farmer's income. The milking, too, in these little dairies, is quite apt to be irregular, especially in the hurrying season of the year, nor is the winter care what it should be, or would be, if milk had a more important place in the revenue of the farm. Many other items, which ought to be looked after, and would be looked after in larger dairies, are apt to be neglected in smaller ones, all of which tend to diminish the returns from the few cows kept below what they might be. While a large number of cows are relatively more profitable than a few, it does not follow that it is best to devote a farm wholly to cows. Mixed farming pays better. It divides the labors of the year more equally over the different seasons, preventing a crowd of labor at one time, for which high wages must be paid,

and comparative idleness at another when wages are low. It enables the farmer to raise many supplies which otherwise he would have to buy, and enables him to live more within himself. Mixed farming allows of using the fertilizing material of the farm to the best advantage and ample time for breaking up and reseeding and for carrying on a sufficient rotation of crops to prevent exhaustion and to keep the farm in good condition, if not to improve its fertility. More cows than most of the dairymen keep who supply milk to the factories—enough at least to command a careful attention from their owners—I am confident would make a better balance in the labors and the products of the farm and enhance its income, and at the same time improve its productiveness by preventing the exhaustion which is sure to follow a single line of cropping.

## Butter Preservatives.

BY PROFESSOR G. C. CALDWELL.

Several notes have appeared in recent journals on processes for the preservation of butter. Manetti, in Italy, has tried the effect of a much more thorough washing than is usually practised, the operation being continued till the wash-water was quite colorless, but the butter kept sweet only a few days longer than another sample washed as usual. The addition of two, three, and five thousandths of salt caused the butter to keep sweet five, fifteen and twenty-five days longer than butter without any salt; with one or two thousandths of borax the butter kept sweet from fifteen to twenty days longer than without any preservative. Concerning this last mentioned substance our Consul in Florence wrote to the Commissioner of Agriculture that very successful experiments had been tried in Italy on its substitution for salt in the proportions in which salt is usually added; but since scientific men disagree as to the harmlessness of borax in food, there is some reluctance in respect to the adoption of this preservative. Professor Beechi, director of the Experiment Station in Florence, has found borax in the well waters of the city, and in the air, as well as in some mineral waters of good reputation; and he therefore concludes that, at least in small quantities, the substance is harmless. He preserves his own butter by mixing with it as thoroughly as possible about one-sixteenth of its weight of pure calcined and very finely powdered borax; the flavor is not affected at all, and the butter keeps admirably.

A new process brought out in Germany consists in covering the butter with a layer about an inch in thickness of a strong solution of sulphate of lime, a chemical that is in somewhat common use for the preservation of cider. Butter thus treated kept quite sweet in a damp cellar through three weeks in July, at a temperature of about 59° Fahr., while another sample not so treated, and unsalted, was quite spoiled. From England comes the account given in the London Times, of a test of a new patent preservative. The butter, into which a trifling quantity of the material was worked, costing about one cent per pound of butter, after being wrapped in a muslin cloth, was put into a firkin without any salt, and left, fully exposed to the air, on the premises of the Aylesbury Dairy Company, from the 1st of July to the 1st of October, and was then as sound and as fresh as at first, having only a little less aroma; about 1 per cent. of salt may be added to flavor the butter thus preserved to suit the fancy of those to whom perfectly fresh butter is too tasteless. It is affirmed that butter salted in the usual way with from 5 to 6 per cent. of salt will be driven out of the market in consequence of this new discovery. If it bears the test of trial on a large scale, it will certainly cast everything else into the shade in the line of butter preservatives, and will be a great boon to those who are forced to use butter that must be put up in a way to keep for a long time.—[Semi-Weekly Tribune.]

[We drew attention to the new patent preservative in our January number, and have since written to England and Scotland concerning it, but have not succeeded in gaining any information.]

MILKING.—The faster and more gently a cow is milked the greater will be the amount given. Slow milkers always gradually dry up a cow, and for the reason that if the milk be not drawn about as fast as it is given down it will subsequently be withheld, and that withheld is, as a matter of course, what is known as the strippings—in fact, the upper surface of milk is the udder.

## Garden and Orchard.

## Planting Shade and Fruit Trees.

We have repeatedly referred to the planting of shade trees and windbreaks. The complaint is often heard that the early settlers did their work so thoroughly in clearing the lands about their new homes as in many instances to leave scarcely a tree standing. The remedy is in our hands. Let us plant without stint wherever we have found it well to do so. Throughout the country it is easy to get young trees from the borders of the native forests, but we would prefer buying young trees from reliable nurserymen. Their trees are better supplied with fibrous roots, and when planted carefully there can be no failures. We will give a few hints for planting. First select the ground to be planted and prepare it by good deep ploughing or digging. The mellowed soil for the newly planted trees the surer and better their growth. In taking up the trees for transplanting let care be taken to take up as much of the slender roots uninjured as possible. Great injury is often done by breaking and mangling the roots. Keep the roots well covered and moist till planted. Dig the holes for the trunks large, that every root may be spread out where it is to grow. When covering them see that each individual root be in contact with the soil, and plant them leaning a little to the south, or rather the south-west, as by this means the inclination of the top will partially shade the stem from the baleful influences of the sun when most powerful.

VALUE OF LEAVES AND WOODS MOLD.—Decayed leaves and mold from woods are of considerable fertilizing value. They may best be used by making litter of them to absorb the liquids of the stables and yards. There is a large quantity of acids (chiefly tannic and gallic) in leaves, and the mixing of these with manure tends to neutralize the acids and increase their usefulness. As they are very absorbent, being able to hold 180 per cent. of their weight of water, they may serve a useful purpose as litter besides being increased in effective value. If this cannot now be done, the leaves, &c., should be spread on the plowed surface and mixed with the soil by harrowing. To plow them in would not be so well as to keep them near the surface where they would be benefited by exposure to the atmosphere. They are found very useful as garden mulch.

Mr. Saunders, President of the Ontario Entomological Society, says in regard to insectivorous birds: "The greater experience I have with these, the more convinced I become that comparatively little help is got from birds in keeping in subjection injurious insects." He considers it a great mistake to protect the robin by legislation. Apart from any consideration of insectivorous birds, the insect world would and does to a large extent take care of itself, and when an injurious species increases beyond its normal limits, its natural insect enemies also increase, and soon become sufficiently numerous to reduce the number of injurious insects to their natural proportions.

Mr. Thomas Meehan, after remarking that many young hedges are ruined by being pruned too young, says that the more he sees of the workings of the following plan, the more he is satisfied that by adopting it a better hedge—especially of honey locust, and other deciduous kinds—can be secured in half the time and at half the cost than by any other method: "It is best to let these grow until the stems are two inches thick at the ground, then saw them to within half an inch of the ground. They will then push up a perfect wilderness of young sprouts, which can be pruned into shape the same season. On this plan the young hedge plants are often two years wholly untouched."

In properly evaporated fruit not only is there no loss in any good quality, but there is an actual development of sugar due to the ripening process, varying from five to twenty-five per cent. The cell structure, flavor and tenderness of the fruit are preserved, and when treated with water, it is easily restored to its former condition, thus solving a problem no less important than the supply of wholesome, nutritious, fresh, ripe fruit—for by this process decay is arrested.



**Home-Made Drying House.**

When in New Brunswick the past summer we went to the thriving town of Woodstock, in Carlton Co., on the St. John River. This is a flourishing town, lumbering being carried on here, and the iron works have aided to build it up; but its chief support has been the fine agricultural country in its vicinity. The farmers here claim to have the best lot of horses to be found in Canada. Fine Durham cattle are also to be found here. The most important lesson we learned here is an entirely new and improved plan of raising fruit, which appears to be of very great importance to all the northern parts of this continent, and one that will be adopted in some localities. We shall, in a future issue, give you drawings, plans and descriptions, and feel satisfied that this plan must come into extensive practice. Mr. Sharp is the introducer of the plan which is now generally adopted in this locality; the result is that in this northern county they are enabled to raise abundance of apples for themselves and are drying large quantities for the foreign market. This is rather remarkable, for in many parts of Nova Scotia and New Brunswick, where this plan has not been introduced, they are not able to raise apples at all. This new plan must be adopted in the far West before apples can be successfully grown there. Mr. Sharp has also the finest plum orchard we ever walked through. He has a large variety, but a new plum that is called the Moor's Arctic was most remarkable for its profusion of fruit. The plums were green when we were there, but from what we heard of this variety we should judge it far superior to any-

thing we have in Ontario for hardness, size, quality and fruitfulness.

What we wish to call your attention to just now is the home-made drying-house. This house is invented and erected by Mr. Sharp. He claims this to be better than any dryer he has ever seen, and from the enormous quantities dried so perfectly and in such a short space of time, we deem it proper to give you a brief description of it. As we are not a professional artist, you must excuse if the heating apparatus is not quite correctly arranged, but any person with judgment can arrange the pipes aright. This is the principle:—No. 1 represents the basement, in which is a brick furnace having pipes radiating from it. No. 2 is the drying loft; No. 3 the stove-pipe in which the smoke leaves the furnace. No. 4 is a wooden chimney. The stove-pipe heats the air in this chimney, causing a rapid escape of damp air from the drying loft, which passes into the chimney through the flue at No. 5. No. 6, the furnace. No. 7, a bridge from the ground to the floor. No. 8,

the figures A, B and C represent the mode of constructing the floor, which is eighteen feet square. The bottom joist, A, is 6 x 2; the second joists, B, are 2 x 1, placed only 6 inches apart, and the floor, C, is made of very small slips, 1 x 1. These are lain close together, or so close that only a thin blade of a knife could be put between them. This, Mr. S. considers better than hair cloth or tin. The apples are easily taken off or turned; it is quite clean. The building is made with double walls, having a cavity of four inches between them, which should be filled with some non-conducting material. There is no patent on this plan. How much cheaper or better than other plans this may be, each one must decide. We were at once convinced that this was a good plan. Perhaps Mr. Sharp might kindly furnish us with further information if he thinks ours is not quite full enough, or any corrections in the plans shown.

**Packing Apples for Shipment.**

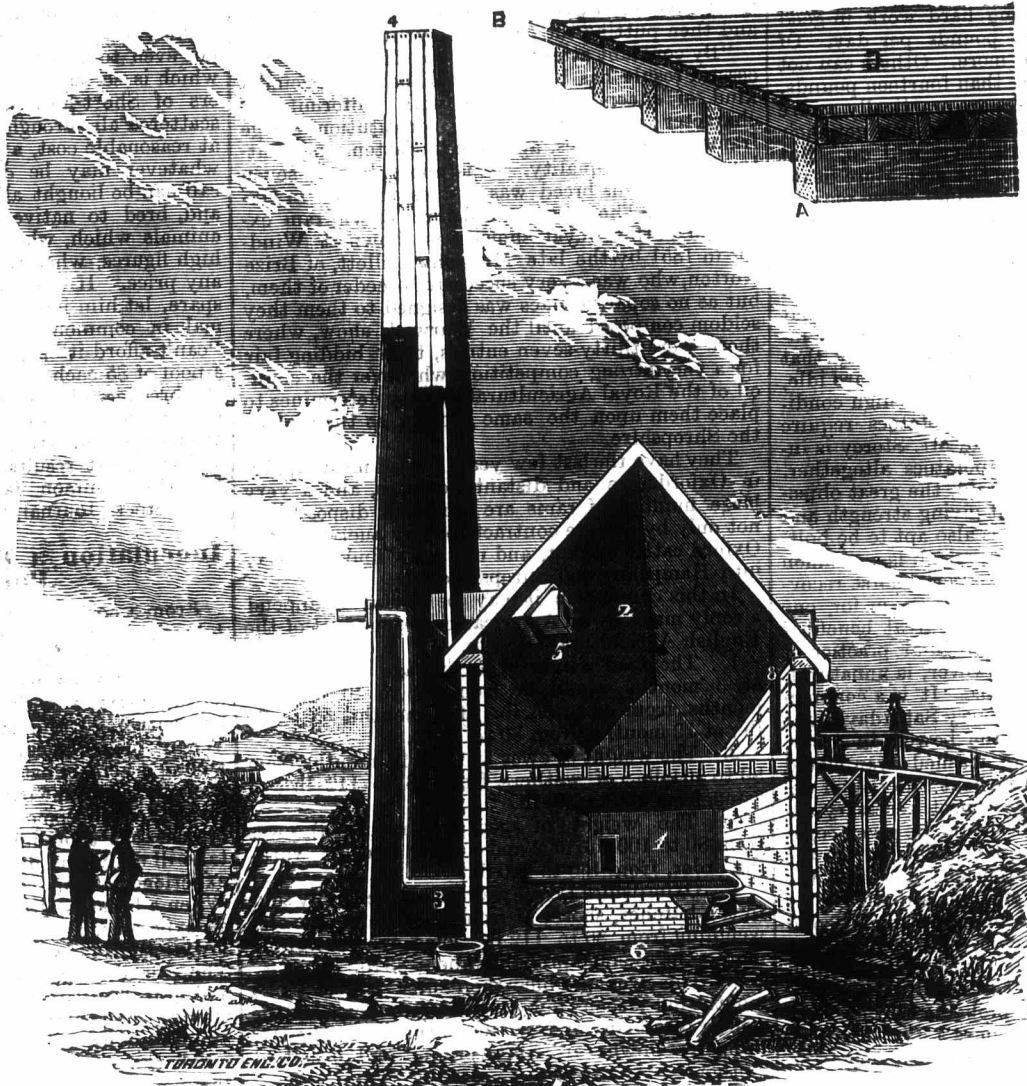
At the horticultural meeting at Rochester, N. Y., Mr. Barry opened the question: "Have there been any recent improvements in the methods of packing and shipping fruit?" by asking "What is the best method of packing fruit for foreign shipment?" He used paper for wrapping the fruit in, but knew of others using chaff in addition. Mr. Vick had tried several ways, but preferred using strong manila paper in which to wrap the fruit. In packing in the barrel he placed a layer of buck-wheat chaff between each layer of apples, and in the ends put a deeper layer of chaff. He had shipped several kinds with success in this manner. Mr. Hooker objected to the use of the chaff, as it would be liable to impart a flavor to the fruit. He thought that good fruit, packed solidly, would stand shipment to a foreign market. He would advise picking the fruit as soon as matured. Mr. Moody thought well of the plan of having fruit houses,

where the fruit would pass through the sweating process before being barreled. Mr. Hoag had a ventilated fruit house in which he allowed his fruit to cool, and where he kept it till November. Mr. Moody thought the thorough assorting of apples a necessity; they should be handled quickly and very carefully, and be left in the sun no longer than necessary. Mr. W. C. Barry left his apples in the orchard till they had passed the sweating process. He thought they should not be placed in barrels till after that—nor should they be shipped abroad till cool weather commenced. Mr. Woodward said apples should be picked early and handled but little. When they snapped easily from the stem it was time to pick them.

There are few greater treats during the winter and early spring seasons, says the London Magazine of Pharmacy, than the magnificent apples which are imported from America to find their places on the desert table in England. Considerable numbers, however, are in a bruised condition from the effects of careless packing: A certain amount of fermentation is set up, and unless they are consumed without delay they are lost to the dessert table.

There is no reason why this splendid fruit should not be imported here almost as fresh and blooming as when it is gathered from the tree. A common but soft kind of tissue paper should envelop each apple before it is placed in the cask, and this tissue paper should have been soaked in a solution of salicylic acid and dried before it is used. The best preparation of salicylic acid for this purpose is the alcoholic solution, made with the strongest spirit, and then diluted with as much water as it will bear without precipitating the acid, so as to make the solution go as far as possible. Each apple should be enveloped in at least three or four folds of the salicylated paper and every possible precaution should be taken to prevent bruising when loading into the casks or cases. Well-packed apples should not move at all during the voyage, and the shaking of a railway train should have little effect upon them. Nevertheless, a certain amount of confusion is inevitable, and to avoid the ulterior results of this the salicylated paper is indispensable.

As to the cost, it would be a mere trifle when we consider the result gained and the splendid condition of the fruit when it enters the London market.



THE HOME-MADE DRYING HOUSE.

The above description was given from a hurried observation while "On the Wing," and to make the particulars as accurate as possible for our readers, we wrote to Mr. Sharp, who sent the following reply, which fully explains itself:—

Woodstock, N. B., Sept. 15, 1880.

Dear Sir,—I am surprised at the accuracy of your ideas of the dry-house, obtained from so cursory an examination. There is nothing materially astray in it. It will dry 15 barrels of apples sliced in 24 hours. It is 16 feet square; the drying floor is made of common sawn lath, split into three pieces, making them a little more than 1/2 inch; is cheaply made; requires no attention or turning the fruit; only needs to put them on, keep up fires and shovel them off. All that is requisite to perfect drying is high heat and rapid draft of hot air up through the fruit. This house cost about \$50, but one for common use, say six or eight feet square that would dry two or three barrels a day, need cost but a trifle and may be all made of cheap lumber. All that is necessary is a room supplied with a large stove and plenty of pipe; a chamber floor of slats; a high wooden chimney to create a draft. The smoke pipe may be separate. Walls should be thick and filled with sawdust. The higher the chimney is the more work the house will do.

There are several ways of keeping cider sweet. One in use among professional cider-makers and perhaps open to as many objections as any is the addition of sulphite of lime in the proportion of one eighth of an ounce of sulphite of lime to every gallon of cider after fermentation has proceeded until the liquor has attained the required flavor.



**Stock.**

**Feeding Horses.**

Extracts from a lecture delivered before an English farmers' club by Mr. J. Storey, V. S.:—In regard to food of all animals, the horse, in comparison to its size, has the smallest stomach. It is therefore of the greatest importance that his food should contain as much nutriment as possible in the smallest bulk, more especially when undergoing hard work. Hay and oats have this qualification to a greater degree than any other of the feeding stuffs in general use, and that they should form the staple food has been proved by long experience. Bruised oats are very suitable for old horses, and those that bolt their corn; but, beyond this, they have nothing specially to recommend them. The average quantity of oats required to keep a horse undergoing hard work in good condition is about twenty pounds per day. Of course, some horses will eat more. Others can not be induced to consume more than fourteen pounds. Drivers of contractors' horses are practically aware of the fact that the more they can get their horses to eat the more work they will do. But the result of over-working is the premature death of many valuable animals. Indian corn may be fed if it is cheap, but must only be used with an equal proportion of bran. Mr. Storey condemns the use of chopped hay, and says that the principal argument in its favor is that the bad hay is eaten along with the good. A horse is better off without bad hay than with it. All kinds of straw are inferior to hay, oats being the only variety that should be used; it does well when horses are idle, as they are not so liable to get into too high condition on it. Carrots, turnips and potatoes require to be fed with discretion; indeed, Mr. Storey is inclined to condemn the use of potatoes altogether. In cooked food, the lecturer said, the great objection is, that it fattens without giving strength and firmness to the muscles. It is also apt to be bolted without proper mastication, which is a common cause of colic and indigestion. For a horse recovering from any debilitating disease, or for one coming off a long journey, it is of great benefit if given judiciously. To make a regular practice of feeding with it every day, however, is unnatural, and, I believe, highly injurious. It is a common practice to give a feed of it every Saturday night for the purpose of keeping the bowels in order. Three-fourths of a pailful of mashed bran would serve the purpose better, without the risk of deranging the bowels. This is a most necessary adjunct in horse feeding, and should be given regularly once a week. It acts mechanically on the lining membrane of the stomach, increases the secretion, and thereby averts constipation. As already stated, the stomach, or receptacle for solid food, is very small; the cecum, or receptacle for water, is quite the opposite. It is not uncommon to see a horse drink two or three pailfuls of water at a time. It is, therefore, probable that he does not require it often. Three times a day is sufficient, provided the horse is allowed as much as he will drink. In cases where he is excessively hot or exhausted, or where he has been kept without water for an undue length of time, it should be given in smaller quantities and more frequently. It is a great and common error to allow horses water after being fed. In its passage through the stomach, the water is sure to carry with it some of the undigested food, which ought never to reach the intestines, and will probably cause colic or indigestion. Grooming or cleanliness of the skin is not a mere matter of glossy or staring coat; it is essential to the health of domesticated animals. When it is borne in mind that the skin is one of the principal organs by which refuse material is thrown off from the body, the necessity of keeping the pores or little drains clear will be apparent. When they become silted up, the lungs and kidneys are overtasked, and hence diseases of both these organs. Washing the legs is the cause of much harm to all horses. It checks circulation, and causes greater evils than the mud and sand which it is intended to remove.

In selecting an animal for breeding or fattening, obtain one having a large chest—the part containing the lungs, heart and the larger blood vessels, all of which have an important function to perform in the process of nutrition. It is well-known among cattle men that animals with small chests do not fatten readily, and they are remarkably susceptible to the influence of exciting causes of disease.

**Oxford Downs.**

The following description of these sheep was presented in a paper read at the Central Farmer's Club (Eng.):—

"The Oxfordshire Downs were, for some years, classed among cross bred sheep, but at a meeting of breeders in 1858 it was determined to give them a definite name. Hence their new title, the propriety of which is demurred at by some; for their only similarity to a Down is in their color. Their size and fleece—important qualities, which have been long and carefully cultivated by the promoters of this breed—partake more of the long wool. The Oxfordshire Downs were originally produced by crossing a Hampshire, and, in some instances, a Southdown ewe—most commonly the former, for it gave increased size—with a Cotswold ram, and then putting the crosses together.

"By constant attention and weeding a most successful result has been accomplished, producing a kind of sheep that possess, with uniformity of character and hardiness of constitution, large frames, good fleeces, aptitude to fatten, and mutton of superior quality. It is about twenty-seven years since this breed was first established in Oxfordshire. The first Oxfordshire Down ram exhibited at the 'Royal' shows was shown at Windsor in 1851 by the late Mr. John Gillett, of Brize Norton, who was a very successful breeder of them, but as no separate class was assigned to them they seldom competed until the Warwick show, where there were thirty-seven entries, thus bidding fair for a very strong competition whenever the council of the Royal Agricultural Society determines to place them upon the same footing as their rivals the Shropshire.

They have the last few years spread most rapidly in Oxfordshire and distant counties, and a very large number of rams are annually disposed of, not only by private contract, but by auction at the Oxford cattle market, and not a few find their way into Hampshire and Shropshire.

In this connection it may be useful to append a reply made by an American correspondent of the English Agricultural Gazette.

1. The dead weight of an average lot of lambs at 3 months would be from 32 to 40 lb; at 6 months, from 48 to 56 lb; at 9 months, 64 to 72 lb; at 12 months, from 80 to 96 lb.
2. The weight of ewes at 18 to 24 months, from 80 to 104 lb; of wethers, from 88 to 112 lb; of rams, from 150 to 200 lb.
3. The weight of aged (full mouthed) ewes from 80 to 100 lb; of 2 and 3 shear rams in working order, from 160 to 200 lb.
4. Oxfordshire Down wethers are generally sold to the butcher, shorn, at from 12 to 15 months old, weighing from 80 to 112 lb; some even weighing more—the average probably about 88 lb.
5. The ewes produce their first lambs at 24 months old; some few breeders put them to the ram as tegs, many at 9 or 10 months old. The Oxfordshire Downs are very prolific and excellent mothers.
6. The mutton is very superior, and commands a high price in the London markets; there is a good deal of lean meat as compared with the fat; and it compares favorably with the mutton of any other breed of sheep.
7. The weight of fleece 12 months' growth of ewes is from 7 to 8 lb; of rams, at 15 to 18 months old, from 10 to 15 lb; of wethers, at 13 to 18 months old, from 8 to 14 lb.

COMPARATIVE VALUE OF DEVONS, HERFORDS AND SHORTHORNS.—STORE CATTLE.—At the great annual fair held at Barnet, England, each class of stock had separate fields assigned for exhibition. Prices were as follows: Devons, well grown store steers, £11 to £14 per head; and ditto, good blood and level lots, £18. Herfords were in limited supply, and made £15 to £21. Shorthorns, large steers, £18; and ditto, in condition, £20 to £24; heifers, £14 to £16.

A MIXED RATION FOR COWS.—Mr. Henry Stewart says that after feeding cows for years, and making a large number of tests for different kinds of feeding substances, he has settled down to a mixture of corn, oats, and wheat bran ground together—not merely mixed—in equal parts by weight, as the best and most profitable food for cows, either for milk or butter, and on ten pounds per day as the ration that can be most economically employed.

**Can Farmers Afford to Improve their Stock.**

Throughout the great and growing agricultural districts there are thousands of farmers who, for various reasons, most of which are insufficient, have made little or no improvement in the grade of their cattle. Occasionally one will be heard to argue that it doesn't pay, but this class is rapidly disappearing. A great majority admit that the improved breeds mature earlier, take on flesh quicker, and convert grain and grass into beef or milk more economically than the common or native stock, but put in the plea of "can't afford to raise fancy stock." That is the delusion which prevents thousands of farmers in moderate circumstances from having anything to do with blooded cattle. We speak of cattle in particular, because, as a rule, this is the last class of stock which the ordinary farmer commences to improve. It doesn't require a block of land, nor a big bank account, to make a beginning. You need not go to England, nor even to a sister province to get the "blood" which is so sure to "tell." Good, reliable breeders of Short-horns, Herfords, Jerseys, etc., are scattered all through the country, and will supply, at reasonable cost, a young bull or a few cows, or whatever may be desired. A pure-blooded bull calf can be bought all the way from \$50 upwards, and, bred to native cows, will give half-blooded animals which, when grown, will sell readily at high figures, when the "scrubs" are not wanted at any price. If the farmer says he hasn't \$30 to spare, let him join his neighbor, and own the animal in common. From this point of view the "can't-afford-it" plea disappears; for, if necessary, a pool of \$5 each can be formed. In just that way the breeders of Madison, Clinton, and other counties in Ohio, in early days, formed their associations for importing Short-horns from England, and the great results accomplished point the way for the common farmers of to-day.—[National Live-Stock Journal, Chicago.]

**Inoculation a Preventive of Pleuro-Pneumonia.**

From a communication to an English paper we take the following extract:—

"Inoculating non-diseased cattle with virus taken from a diseased beast has long been practiced in Australia with the very best results, as a preventive to the spread of pleuro-pneumonia. When pleuro-pneumonia makes its appearance among a herd of cattle, usually only one or two are affected at the outset, and it is some time before others become diseased, but when once the disease has thoroughly established itself, cattle take ill daily and die rapidly; such has been my experience of this complaint in New South Wales. When a beast is observed to become sick, this, to an experienced eye, is easily detected by the following signs:—1st. The animal has a cough. 2nd. The animal remains away from the rest of the herd and grazes but slightly or not at all, though there may be plenty of pasture all around. 3rd. The animal has its neck outstretched and extended towards the ground." The writer having described the method of the inoculation, says:—"After inoculation the cattle will be more or less affected, and will, to a great extent, refuse food for a few days, but usually within ten days they will have entirely recovered, and are safe against any contagion."

**Hampshire Downs.**

Great improvements are reported in this breed of sheep within the last decade. The English Agricultural Gazette, speaking of the Royal Agricultural Society's Show, says the Hampshire breed is yearly gaining ground, and will, we are convinced, become more highly appreciated. They are in the hands of a very business-like class of men, who keep them for profit, and because they believe no other class of sheep will pay so well for their keep. No breed produces lambs which come quicker to maturity, and no race is better calculated for crossing with long-wooled ewes, to produce strong, half-breed lambs or yearlings. The Hampshire combines the quality of the Southdown with the size of the Shropshire, which, indeed, they excel. The Hampshire equals the Southdown in the London market as regards price per pound.

Le Courier de Canada claims that the beet-root sugar industry will enable the farmers to fatten stock for export in the winter. Three tons of beet-root pulp are equal for fattening purposes to a ton of hay.





**NOTICE TO CORRESPONDENTS.**—1. Please write on one side of the paper only. 2. Give full name, Post-Office and Province, not necessarily for publication, but as guarantee of good faith and to enable us to answer by mail when, for any reason that course seems desirable. 3. Do not expect anonymous communications to be noticed. 4. Mark letters "Printers' Manuscript," leave open, and postage will be only 1c. per ½ ounce. We do not hold ourselves responsible for the views of correspondents.

#### A Substitute for the Clover Crop.

SIR,—Not from choice, nor because anything we may substitute will fully take the place of clover, but as the clover crop is of late years subject to so many casualties, it is quite necessary, and it is also a mark of good husbandry, when one finds that his clover seeding has failed, to till the ground again as soon as possible after harvest, and sow to something that will grow a good clean crop to plow under, and, by so doing, even if it is not as good for the land as clover would have been, still it is much better than to let such stubble grounds lie bare, or only growing foul and noxious weeds, to the detriment of the land and to the disadvantage of the following crops. I have for a few years past practiced about as recommended in the last FARMER'S ADVOCATE ("Green Crops for Plowing in late"), and if I find the seeding has failed in the stubble lots, or if I have any unoccupied lands after the harvesting of early corn, potatoes, beans or flax, I will, with the plow or cultivator, or gang plow, or the wheel drag, put the land in fair tilth for a seed bed, and sow to some crop for plowing under as green manuring for the land. I find that the tilling required for putting in such a crop, and the crop itself growing there in place of a foul growth, which would naturally have been there instead, keeps the land cleaner and in better tilth, and when plowed under will add considerable fertility to the soil. For this purpose I use buckwheat or oats where I intend to plow them under in the fall, but if intended for the next year's fallow, or planting ground, I use rye, for it will grow in the spring as large as can be plowed under in season for corn on other planting grounds, and growing so much quicker than clovers often gives it quite the advantage over that for such purposes. At this date, Aug. 30, I have buckwheat sowed after the harvesting; the first field a heavy crop well in blossom, and standing two feet high; the next field was sowed to oats, and is now green and nice; the next is to rye after early corn and potatoes, and the fourth lot (25 acres) is sowed to rye to plow under for next year's planting ground. I believe that as with "idle hands," so with idle lands, it is a great source of mischief to let them lie idle, and if so left it is much harder to bring them to good tilth with the following crop than if they had in the meantime instead grown some such sweet clean crop to help enrich the land and keep it in good friable condition.

H. IVES, Batavia, N. Y.

SIR,—I have a fine large crab-apple tree, and for the last three years its apples have been blighted (or scabbed as usually called), and stunted in growth; each year it is getting worse. Otherwise the tree looks well. Any information you can give would greatly oblige, A. B., Port Hope, Ont.

[It is probable that this tree is on a soil not well drained. This should be seen to and remedied. Then loosen the soil well all around the tree so as to give air to the roots and promote healthy growth. The trouble you refer to is an indication of unhealthiness in the tree.]

SIR,—In a former communication on Prickley Comfrey, for last ADVOCATE, you made inches of my feet. I said plants were 30 inches high, and measuring 7 to 9 feet in circumference. I measured a plant or hill of the prickley comfrey since my former letter, measuring 15 feet in circumference. I cut a hill this morning which had 170 stalks in it, and was from a root ½ inch in length, planted late in May. For feeding pigs alone I consider it worthy of a trial. I have hills cut six weeks since which will now measure 10 feet in circumference.

A. C., Newburgh, Ont.

#### Concrete Buildings.

SIR,—Would a concrete wall be suitable for a barn foundation? Would it be durable? How would it do for a cellar wall? Would it do for the walls of a house instead of brick? And in what proportions should the sand, lime and gravel be mixed?  
W.M., Woodville, Ont.

[Concrete would be suitable for the foundation of a barn, or for a cellar. The walls of a house may be built of concrete instead of brick, and will be found equally durable if properly done. Concrete is also the cheaper material. The method of building concrete walls is so explicitly laid down by a writer in the Montreal Star, that we give it for your guidance:

The cheapest and most durable farm buildings may be constructed of concrete. This is a mixture of cement made of lime and sand mortar, or mortar made of hydraulic or water lime, commonly called cement, and sand, with gravel or broken stone. The stone or gravel, or both, may be fine or coarse, but the coarser it is the better and more solid the work will be. The manner of mixing the material is such that the gravel or stone is merely coated with the cement, and the spaces between the fragments are filled with it so as to form a strong adhesive solid mass. The proportions of the materials used are as follows: one part of lime (dry), two parts of coarse sharp sand, and three to five parts of gravel or stone. If hydraulic cement is used, half the proportion of lime used will be sufficient, as this substance is much stronger than lime.

The lime is slaked and mixed with sand in the usual manner to form a stiff mortar. The stone or gravel is heaped on to a mixing board and thoroughly wetted. A quantity of the mortar is spread out and the wet gravel is thrown on to it, and both are well mixed with shovels, water being added to make the concrete plastic. If hydraulic cement is used, this and the sand are evenly mixed in a dry state, as the mortar sets very rapidly. A small portion of this mixture is wetted and worked up to a thin paste, and the right proportion of gravel, previously well wetted, is added; the whole is thoroughly incorporated and is put into the molds at once.

The walls are built up in molds made of planks or boards, held in place by means of posts or scantlings, put up in a frame on each side of the walls. The doors and window frames are fitted in before the concrete is laid. The walls should be at least 16 or 18 inches thick for a two-story house, up to the first row of beams; the upper part may be 12 or 14 inches. The beams are built into the wall, and the ends should rest upon a strip of plank 2x6 to distribute the weight on the wall. In placing the concrete, stone may be worked in at the corners, and anywhere else to fill up and make the work solid; but stone that is added in this way should be dipped in water before it is used. When no large stone is at hand and gravel or small stone is used, the corners should be bevelled. This is done by nailing six-inch strips in the corners of the frames to close up the angles. As the concrete is put in its place it is well rammed, and if the top is made moist by this procedure, some wet sand and stone may be added and worked in by further ramming. But the ramming should not be so violent as to disturb the position of the frame boards. The frame may be made of the pieces used for the rafters and the boards for roofing, as these are in no way injured by being saturated with lime; on the contrary they are improved and made more durable. When one layer of 18 or 34 inches is made around the building, another is begun at the starting place and carried on as at first; the boards of the frame are raised as may be needed as soon as the concrete within them is hard and solid. Each corner should be made at one operation, so that the work may be solid and without joints. Concrete being dry and porous, inside plastering may be laid upon it without lath. The chimneys are made in the walls as they are built by inserting blocks of the right size and raising them as the work rises.]

SIR,—In a former number of your valuable journal you said there were good fields for emigration in Ontario. I have been thinking of trying my fortune in some part of the unoccupied districts of the Province. What do you think of Muskoka as a farming country? Is it better for tillage, or for stock-raising or dairying? A YOUNG FARMER.

[See our article on Muskoka in this issue.]

#### Curing Meat.

SIR,—I want to get the very best receipt I can for curing hams.  
J. W. B.

[“For 100 lbs. of meat take 7 lbs. of good salt, 2½ lbs. of brown sugar (or 1 quart of molasses), 2 oz. of saltpetre, 1 oz. of cayenne pepper, and 2 oz. of cloves. Two ounces of black pepper may also be used, if it is not distasteful to those who are to eat the hams. Pepper is used merely to prevent attacks of flies. Boil all the ingredients in sufficient water to cover the meat when closely packed in the cask. Skim and cool before pouring over the meat. The same ingredients can be used for rubbing the hams, if this mode is preferred to a pickle. For rubbing, however, it is better to add another pound of salt and half a pound of sugar to the above ingredients. This pickle is equally good for hams, shoulders, bacon, corned beef and dried beef. When corning beef, the meat should be well rubbed in salt and packed closely in a cask two days before it is pickled. This extracts the blood, and the meat must be taken out and washed before packing for final pickling.” A writer in an exchange, who has used the above receipt for over 30 years, says he is convinced it has no superior.]

SIR,—You will very much oblige by answering, through your very valuable journal, the following questions:—1. Would it be injurious to young apple trees, plum or peach trees to grow onions among them? 2. Which do you consider the most profitable kinds of onions to grow, and how ought the ground to be prepared for them? 3. At what age ought Baldwin apple trees to bear say one barrel of fruit, with good soil and cultivation? 4. How many onions ought to be raised on an acre of ground, with first-class preparation and cultivation? 5. Can I grow them where turnips were raised this year? By answering the above questions you will greatly oblige,  
A CONSTANT READER, Chatham, Ont.

[Apple trees may be expected to commence bearing at about eight years old if standards, earlier if dwarfs. The time they will bear a large quantity of fruit depends on circumstances. We have plums eight years old that have been bearing heavily for two years.]

It is not advisable generally to plant or sow any crop between fruit trees, as one crop is enough for the ground at a time. The growing of a crop of onions, however, would not be injurious to young apple trees. The cultivation and manuring for the onion crop would serve the growth of the trees, but the trees would not serve the onion crop. Onions grown from seed are white, dark red or yellow. The white are the finest flavored, the dark red are the largest croppers, the yellow are the best keepers. The soil should be well tilled and enriched with rotted manure, and rolled or otherwise smoothed. The seed is sown in drills 12 inches apart, about one pound of seed to the rod. The spaces between the rows are to be cultivated with the scuffling hoe frequently to prevent the growing of weeds and to keep the soil fresh and friable to attract and retain the moisture, with its accompanying ammonia, from the atmosphere, and to stimulate the growth. Onions are harvested in August. When taken up with the digging-fork they are left on the ground to get thoroughly dried and then put on shelves for keeping, or in barrels, in an apartment dry but not too warm. The produce varies greatly, according to the soil, and favorable season, and other circumstances. Eight hundred bushels have in some instances been grown to the acre, and sometimes not more than one-fourth that quantity.]

SIR,—Would you inform me which is the best kind of grape for latitude 42° longitude 80°; also the best work on grape culture, and price.  
W.B.N., Angus, Ont.

[In the culture of grapes in the locality spoken of much would depend on the proximity of large bodies of water and the prevalence of spring and early autumn frosts. Of all the very early grapes in the market, Moore's Early is the best. It resembles the Concord very closely, and is two weeks earlier. The Champion is also an early variety, but of poor quality. If the season is long enough to ripen the usual standard sorts, the following would be a good selection:—Concord, Delaware, Burnet, Canada, Rogers' 4, Rogers' 15, Clinton, Martha, and Creveling. Best work is Fuller's Grape Culturist, which will be mailed post-paid from this office for \$1.50.]



**Farming in Prince Edward Island.**

SIR,—You will, I have no doubt, make space in your valuable paper for a few lines on the agriculture of Prince Edward Island. Crops in the Island have been very good. The wheat crop is excellent, and has been harvested in fine condition, the weather having been very favorable. Farming has improved very much of late years; composting barn manure, marsh and swamp mud is extensively entered into. Several of our farmers have put up this season from 500 to 1,000 loads. It is found to be excellent for potatoes. Then we have four lime kilns at the wharf kept burning most of the time. They supply the demand excepting the wheat sowing season, when it becomes pressing, as we consider it useless to sow wheat or grass seed without lime. The Hon. Joseph Pope, it is said, was the first to introduce the composting of marsh mud and lime, who found them to make the best fertilizer known during his farming career.

A. B., Cape Traverse, P. E. I.

SIR,—I appreciate the FARMER'S ADVOCATE, and would not be without it, though money is very scarce down here. The National Policy is running us off the track, however it may benefit you in Ontario. Prospects are good in P. E. I., and an excellent crop of hay has been harvested in fair condition. The wheat is injured somewhat with weevil, still with fine weather a fair crop will be secured. Potatoes and oats promise abundantly. In some sections farmers are turning their attention to stock raising. On account of the uncertainty of the markets abroad for our potatoes, farmers are turning their attention to starch factories. At Eldon, Belfast, Shedd, Moore & Co. have a factory and last winter used up a large quantity of tubers; another factory is also in course of erection at St. Peter's Bay, farmers in that section having pledged themselves to supply them.

A. A. M., Montague Bridge, P. E. I.

SIR,—If not too much trouble I would be pleased to get information on the following questions through your valuable columns:—1. Are not long keeping winter apples more profitable for general culture than the summer and fall varieties? 2. Name six best late keepers in order of preference for market growing. 3. Name a list of pears, with time of ripening, which will give a succession of ripe fruit from the earliest summer up to the latest ripening winter pears. 4. Name six best varieties of plums. 5. Name four best varieties each of black, red and white grapes for out-door culture. 6. Name best kinds of red and black raspberries, each to give a succession. 7. Name best kind of black, red and white currants. 8. Name two earliest, two medium and two latest ripening kinds of strawberries. 9. Are blackberries and gooseberries profitable, and if so, what kinds? 10. What is the best work on large and small fruits; and who is the author? I fear I am asking too much; am a farmer's son and intend to grow fruit for market. Advice from practical experience will save costly experiments.

A. S. B., Demorestville, Ont.

[1. Yes, because they can be shipped to foreign markets, where remunerative prices can always be realized, while summer and fall varieties have to depend on the local demand, which the supply always exceeds, consequently they must be sacrificed. 2. Rhode Island Greening, Green Newton Pippin, Northern Spy, Roxburgh Russet, Swaar and Baldwin, to which we would like to supplement Swazie Pomme Grise, American Gold Russet and Mann Apple. 3. Doyenne d'Ete, Beune Giffard, Manning's Elizabeth, Osband Summer, Clapp's Favorite, Bartlett, Flemish Beauty, Sheldon, Duchess d'Angouleme, Beurred, Aryan, Josephine de Malines. 4. Lombard, Yellow Egg, Washington, Imperial Gage, Pond's Seedling and Coe's Golden Drab. 5. Rog No. 4, 36, Concord, Moore's Early; Rog No. 15, Brighton, Delaware; Rog. No. 53, Allen's Hybrid, Lady, Niagara, Lady Washington (Rickett's). 6. Franconia, Mammoth Cluster. 7. Black Naples, Lee's Black, London Red Cherry, Red Victoria, White Grape. 8. Downer's Prolific, Mianor, Wilson's Albany, Calchenev Triumph de Gand, Kentucky. 9. They are; the best kind of blackberry is Kitatinning; of gooseberries we recommend Downing & Smith's Improved. If your soil is clay try some English varieties, such as White Smith, Sulphur, Crown Bob, Warrington Red, &c. 10. The best, most practical work on fruit and fruit trees and fruit garden is P. Barry's "Fruit Garden."]

**The Currant Borer.**

SIR,—While fruit generally is an excellent crop this season, currants were an exception. Red currants especially were a failure. The blossoms sent out were so feeble that they fell off prematurely and there were hardly any berries, and what there were shrivelled up without coming to perfection. Black currants were a light crop, but this was caused by a May frost. As slight as it was it nipped many of the blossoms that were then about setting. I would wish to know through the ADVOCATE what affected our red currants and what remedy to make use of, if there is a remedy.

W., Stratford.

[Your currant bushes have, we judge from your letter, been infested by the currant borer, an insect that has for some time been very injurious in our gardens. It is closely allied to the peach tree borer. It deposits eggs about June or July, selecting just under a leaf a place for the purpose. The young, when come to life, penetrates to the centre of the shoot, living on its substance, and remaining there till early the following spring, when it comes out a perfect insect about the time the currant is in flower. We have had some currant bushes so much injured that the fruit was not worth picking. White currants have been even more injured by the borers than the red, while black currants have been uninjured by them. There is no remedy for them at this season. The bushes should be examined early in the year. Wherever there are strong, vigorous shoots you may not examine them, for a young branch cannot be strong and have a borer in it. Look carefully to the weak ones. The mark where the egg has been laid will be easily seen, like a little black dot on the brown bark. On splitting this shoot up the centre you will find it hollow, the pith having been eaten out by the insect, which you will find in the upper end.]

SIR,—I have been advised to plant a Honey Locust Hedge in front of my place along the road. Others say that Canadian thorn is better, as it is a native of this country and is hardier. Have you had any experience of the Honey Locust tree? Is it hardy enough to live in Canada, and would it make a strong, close hedge that would prevent the trespassing of cattle? Rails and posts are not so easy procured now as they once were, and we require fences of some kind.

A. F.

[The Honey Locust has not been much planted in this part of the country; it is a native of the United States. We have had some experience with it, and can say that it is very hardy. We have it growing in a very exposed situation with a northern aspect, and our winters do not affect it in the least. It is a rapid grower. Whether it will answer well for hedges here remains to be tried. It has been planted for hedges in the States. In parts of Illinois it was tried some years ago with indifferent success. After a few years the plants died out after growing well for a time. The cause of this failure is said to have been want of care. The plants were not winter killed, but the strongest ones dwarfed and destroyed the others. In Wisconsin, on the other hand, the hedge planting has succeeded well; there it was taken proper care of. In the milder climate of Illinois the hedge was rendered useless by neglect. Its strong stem and branches and lance-like thorns are enough to make a hedge formidable to any cattle attempting to break through it. To make a close hedge, however, the pruning knife must be unsparingly but judiciously used, otherwise the branches will grow long and straggling and will not make what is a close hedge. Of the hardness of the Canadian thorn there can be no doubt, but it is of slow growth. It can be raised by the farmer himself, and the seed is easily procured, or the plants may be procured from nurserymen. There is no better hedge than the Canadian thorn.]

MY EXPERIENCE IN MULCHING STRAWBERRIES.—Early in the fall, having freed the land from weeds, I sowed drills of oats between the rows of strawberries. The oats grew rank in the fertile cultivated soil till killed by the frost, and then fell down over the strawberries, completely protecting them from being winter-killed. They grew early in spring, the frost-killed foliage of the oats serving as a good fertilizer. The warmth of the soil from this mulching stimulated the growth of the plants, while protecting them from May frosts. The cultivation when sowing the oats is also a means of killing young weeds that are found so annoying to strawberry growers.

M. C.

**The Model Farm Stock.**

SIR,—In your last issue, Sarawak, in a strange, rambling letter, which was very exaggerated in many points, attacked my criticism on the stock at the Model Farm generally. In defence of my position I may say, when I go to the Model Farm I do so to inspect it and gain information, if possible, and not to eat good dinners at Government expense, and waste time in the dining hall which should be spent in the cattle pens.

The position I took in my last letter I now maintain. Where credit was due them I gave it, and where they deserved criticism they got it, though in a very mild form. I have frequently seen and heard very severe criticisms on the above mentioned stock from experienced and successful farmers, and one now before me, written by a Granger, who visited the farm last summer, to the Bruce Herald, speaks very severely of it without giving it a redeeming point. Not that I am governed by the opinions of others, but to show you that others coincide with me. In fact the Principal does not claim that many of the animals are first-class.

At the recent Toronto show it is probable they exhibited their best animals, and while there were some good ones among them, many were inferior to those belonging to private breeders, who do not get a large Government grant to help them along. From the Toronto Globe we extract the following remarks which were made concerning animals at said exhibit. We in Ontario all know the Globe is very favorable to the College, and will give it all the credit possible. In speaking of the Angus bull, Gladiolus, after a few descriptive remarks, they say:—"In shape he is not more than a second class animal, being hollow behind the shoulders, thin over the croup, and not wide behind." Again, speaking of the Devon bull, they say: "He was imported as a calf, and has turned out small for the breed." This in the Devon, especially a stock bull, all know to be a very bad failing, as the breed is already too small to be appreciated in this country. The Hereford bull the Globe also characterizes as under size, though good otherwise. Slight fault is also found with the Berkshire boar. Of the Cotswold ram they make the remark, "he appears rather too leggy." These remarks on stock males are not very flattering. If the Globe had said the Cotswold ram was not fit to use in a first-class flock it would have been correct, and they might have used the same language concerning the Durham bull as regards his use upon a first-class herd of cows. Regarding the sale of the Hereford calf spoken of in Sarawak's letter it certainly was a good price. I did not say there were no good animals at the College, but what is one among so many? And we are really inclined to think the College made a double mistake in selling this one: 1st. To establish a good herd or flock the best animals must be kept in the breeding herd, not sold, and yourself breed from culls. 2nd. If the animal was to be sold, should it not have been kept until their annual auction sale and allowed the Canadian farmers a chance of owning it; and if Cousin Jonathan was willing to pay more than Canadians, then let him have it; but by all means let the Canadians have a chance of owning what has been produced at their expense. STOCKMAN.

**Mules.**

SIR,—I noticed a communication in the September No. of your valuable journal, asking for information about mules. I imported a Spanish Jack in the spring of 1877. Some of his mules are now coming three years old. They are all heavy animals, standing 15 to 16 hands high, and are highly prized by the farmers in this section of country, so much so that the agricultural society of this township have offered prizes to be given at the Ameliasburg central fair, to be held on the 9th October, for the best Jack, and three prizes for mules in each of the following classes:—Sucking, yearling, two year old and three year old mules, also for the best span of mules. For general farm purposes they are considered much hardier and thrive well on food unsuitable for laboring horses. Disease is almost unknown amongst them. When I purchased my Jack they were held at from \$600 to \$1200, and I understand they are worth more now.

J. C., Consec, Ont.

[The price of Spanish Jacks will be found to vary from \$200 upward, according to age and quality of animal, and the locality in which they are bought also has an influence over the price.]



**Devonshire Notes.**

(From an Occasional Correspondent.)

Exeter, Devonshire, England, Sept. 15.—Happily, this year things have proved more favorable for the English agriculturist, and now that the harvest is over—in Devonshire and other parts of the south, at least—the reports from all sides are most encouraging. In every direction the hay crop is said to have been in splendid condition, although the shear was to a great extent light. The quality, however, was all that could be desired, and for the most part it was well saved. The show of after-grass in the neighborhood of Exeter is very good. The reports as to the yield of wheat, are, as is invariably the case, rather conflicting, but, taken as a whole, the crop has been an average one as regards quantity, and an exceptionally good one in point of quality. Making a rough estimate, the yield has been about thirty bushels per acre, but probably this is giving a full average. There is no doubt that in many parts, although the kerning was good, the plant was thin, and on some poor lands the yield did not amount to much more than fifteen bushels. In other and more favored spots the yield was from forty to forty-five bushels. Around Sidmouth, for instance, wheat came out at the rate of forty bushels per acre, and in the neighborhood of Silverton the yield has in several cases reached forty-five bushels. Barley and oats have also proved very heavy and good crops; the former has been an exceptionally fine crop. In short, the harvest as a whole, has been a remarkably fine one in Devonshire, and the farmers generally are in the best of spirits. New wheat is quoted on the Exeter Corn Exchange at from 5s. 6d. to 6s. per bushel.

The root crop, especially turnips and mangolds, shows an abundant yield; and as for potatoes, they appear this year to be extraordinarily plentiful. Their quality, quantity and size greatly excel last year's crop; and I am glad to report that very little disease has made its appearance. The "Scotch Champions," which have been only lately introduced in this neighborhood, give a most luxuriant burden.

Of course, Devonshire being the land of cider, the greatest concern is at all times manifested for the apple crop, and when that fails it is only natural that grumblers should be heard in the county. I am sorry to report, therefore, that notwithstanding the fine season, the apple crop this year is a poor one as regards quantity, though the quality of the fruit is, as a rule, most excellent. This is doubtless in some measure owing to the fact that the adverse season last year tried the trees very severely. At present, however, they are said to be looking healthy and strong, and with anything like a favorable season next year a good crop may be confidently anticipated. As a rule this year the crop in bulk is said to be not half a one, and in the neighborhood of Exeter the yield is reported to be not much more than a quarter of the average. The scarcity is not confined to Devon, for the same complaints come from other apple-growing districts. Owing to this scarcity many lots of apples, which in an ordinarily good season would have been used for cider-making, have been bought up by speculators and sent off to the London and other large markets. Good fruit has made as much as 9s. per bag, and as a matter of course, when anything like this price can be obtained, it pays the farmer better to sell than to make cider. The stock of cider, already nearly exhausted, will not therefore be greatly replenished this year. Last season apples were scarce, and the fruit poor, and consequently the quality of the cider made was not remarkable. What little is made this year should be of first-class quality, and at the sales which have taken place freely of late, the fruit has fetched good prices. Near this city a few days ago several orchards were sold, and a portion of the crop, where the fruit was specially good, sold at the rate of £2 per hogshead, almost double the value of last year's crop. By the time the cider is made the first cost of the apples will be increased to such an extent that farmers will probably in many cases have to find some substitute for it in general use.

The farmers of this part of England have indeed been favored by Providence this year, for the delightful sunshine that has prevailed for the past three or four months has not only been auspicious for the crops, but for stock also. There is not much fear of the re-appearance of the sheep-rot, which did so much damage a little while ago. Several cases of pleuro-pneumonia are reported in different parts of the country, but these are not due to climatic causes, and energetic means are

being employed to stay the spread of this disease. In regard to pleuro-pneumonia a correspondent writes to a local what is considered here a very important letter. The writer, who is at present on a visit to Exeter, is a regularly trained professional man, having diplomas from London and New York, and has had the advantage of practical experience for many years on a very large cattle station belonging to his father in Australia. He tells us that pleuro-pneumonia has been there fought and vanquished by the practice of inoculating non-diseased cattle with virus taken from a diseased beast. He says also that the meat of cattle slaughtered in the first stage of lung disease is quite fit for food, although of course not quite so good in all respects as other meat.

I think the people of Devonshire must have a sort of mania for attaining excellence in gardening operations. Such pictures as one sees in cottage gardens hereabouts I have met with nowhere else in my travels. The man whose taste does not lead him to cultivate flowers to the height of perfection (and these men seem few and far between, for almost every garden has its dainty flower patch), certainly glories in monstrous cauliflowers, cabbages, &c. One of my most agreeable walks is through the suburbs of Exeter, drinking in the beauty that dwells in these neatly-kept cottage gardens.

SIR,—As your journal contains items of great interest on the general agricultural improvement in all parts of the Dominion, I send you a sketch of the Danish settlement (New Denmark), in this Province.

It is about eight years since the first tree was cut in the Danish settlement. The pioneers numbered thirty-six. Their first impression of the place must have been anything but pleasant; and it is not surprising to learn that for a time they were greatly discouraged. But a few years have wrought a great change. Where eight years ago was unbroken forest are now about three thousand acres of cleared land. Of course there are numerous stumps, but a little time, a stump lifter and a moderate amount of muscle will cause them to disappear. The extent of the settlement may be learned from the fact that the length of the roads running through it in various directions is about thirty miles. The crops on every hand look promising. Each family raises enough for its own use and something to spare. Quite comfortable houses and suitable barns and other buildings are on most of the farms. The people are contented, and are evidently prospering equal to their expectation. The population of the settlement is now five hundred souls. Each year since the first company arrived there has been an addition of their countrymen. Sixty-seven have come already this year, and more are expected. Some who leave home with the intention of settling in New Denmark, are, on their arrival in America, persuaded by Western land agents to go West.

MIRAMCHI, N. B.

SIR,—Upon the back and body of one of my cows are a number of warts, the majority, in size and shape, resemble raisins, but in composition they are really horn. The largest two (size equals a hen's egg) were torn off by other cattle, and the wounds will not heal and give off an offensive odor. There also grew on her back last winter a large cancer or wart (the size equal a teacup), which by times would fumigate the whole stable with its stench. This I cured by feeding sulphur and applying hog's lard, a hint got from the *Advocate*. Will you please give me the cause and cure of the whole trouble. A. B., New Minas, King's Co., N. S.

[Your cow is troubled with a kind of tumor or cancer warts. It is well to remove as much of the tumor as possible with a knife, and then dress the part every second day with a solution of arsenic. If much smell arises from it then dress twice or three times a week with carbolic acid diluted (one part carbolic acid and thirty parts water). In many cases it is constitutional, but in your case we would not be able to say without seeing the animal.]

SIR,—As an old subscriber to your publication, I have taken the liberty of canvassing, the result being a new subscriber; and as there seems to be no one in this part to represent your paper, I hope you will accept the same as my quota of the regard in which I hold the *Advocate* as always having done its duty to the farming community at large.

T. R., South Morch.

**Flavor of Beef.**

We contend that the quality, and especially the flavor of beef, depend on the food furnished the animals, much more than on the breed. We see that a noted French agriculturist, M. Monclar, has proposed, through combinations of food, to give any flavor desired to the flesh of cattle, sheep, pigs and poultry. He instances poultry fattened upon food containing a small admixture of chopped truffles as being very much finer in flavor than those chickens that have been stuffed or larded with truffles after dressing. This, he says, is natural, for the flavor of the truffles eaten by the chicken permeates the whole system, which it cannot do when simply placed in the dressed carcass. He also instances cases in which hares killed in a wormwood field, larks shot in a cabbage field, and eggs laid by hens which had eaten diseased silkworms, had such a nauseous taste that no one could eat them; while ducks and fieldfares which had fed upon sprigs of juniper had a delicious flavor. He fed tame rabbits with the waste of anise-seed in barley and bran, and others with the food slightly flavored with the essence of thyme. In each case he found the flesh of these animals was much finer than when fed in the ordinary way, but has no distinct taste of the juniper or anise-seed. And he comes to the conclusion that cattle and other animals may be fed so as to give different flavors to their flesh, and that these flavors may be produced according to the skill of the feeder.

This Frenchman carries the doctrine to the last extreme; but it is by no means certain that facts may not justify all his assertions. Our points heretofore made lead to the same conclusion. We have all been conversant with many cases of pork taking a peculiar flavor from the food, such as from beech-nuts, acorns and other mast. The pork in these cases is strong and oily when the pigs are killed without change of food; but if put in pen and fed for a few weeks upon corn or barley the mast flavor is gone, and the flavor of corn-fed pork remains. Pork made upon butchers' refuse has a peculiar flavor, and that made upon fish scrap has a disagreeable taste, and must be finished upon grain to change it. The flesh of poultry fed upon grasshoppers is very disagreeable to the taste, and must be finished off upon other food. Waterfowl fed upon fish have a fishy taste; and, in fact, the food of all animals permeates the whole system, and stamps the flesh with whatever quality it possesses to a large degree.

These facts go clearly to show that the art of feeding needs more careful study than has yet been given to it. Skill in combining foods of different qualities enables the feeder to economize everything grown upon the farm, balancing straw with best clover hay; corn fodder with wheat middlings, oil-meal, or other nitrogenous food, etc. And so, likewise, when the animals have been fed and grown upon the most economical plan, the feeder may still further perfect his system by studying the flavoring foods, and testing them in actual practice.

It will probably be found, on careful experiment, that the foods best adapted to flavor the flesh are also those that make the best condimental foods; so that while the feeder is studying those flavoring materials which the animals most relish, he will find also those materials which give the finest flavor to the flesh. This is a field very little explored—one in which experiment may lead to greater profit. It offers an opportunity for skill in experimenting; and the experimental farms in agricultural colleges should be equipped with such skill.—[Ex.]

There is a movement among Toronto capitalists to establish a syndicate with a capital of \$1,000,000 for the purpose of engaging largely in the export cattle trade.

The Ontario Entomological Society held their annual meeting in Hamilton, Sept. 28th, and elected the following officers for the ensuing year: President, Wm. Saunders, London; Vice-President, Rev. C. J. S. Bethune, Port Hope; Sec'y-Treasurer, E. B. Reed, London.

The Electoral Division of Mountain, Manitoba has organized an Agricultural Society, with Robt. Reesor, Esq., Silver Spring, President, and R. L. Preston, of Preston, Sec'y-Treasurer. The Board also contains 1st and 2nd Vice-Presidents and a full staff of Directors and Auditors. The Society is open to the Province on payment of the usual membership fee of \$1.





The Family Circle.

"Home, Sweet Home."

A REPORTER'S ROMANCE.

Walter Condon and I—reporters for two morning newspapers in the city of New York—were nearing the end of our long round of visiting police stations in search of news, as the clocks were making ready to strike twelve. Turning out of Pearl Street, where the bitter wind of this January midnight was driving fine icy snow into our chilled faces, the green signal lanterns before the door of our last station showed us a hospital ambulance standing there. Hastening to enter we found, lying on the floor of the back office, with an ugly wound in his head, a man whose face we had often seen in the cells for thieving, and whose business was to peddle sweetmeats among the concert saloons and sailors' resorts existing in such terrible abundance between Chatham Street and the East River. The surgeon thought the man would not live, but ordered him removed to a hospital. At that moment the front door was opened timidly, and a small voice asked, "Please, sir, is he dead?"

"No, he ain't croaked yet, but he will 'fore long," answered the glum door-man. Then, seeing the scared, pitiful little face, he added, more kindly, "What do you want with old Baldwin, anyhow?"

"I don know, sir. He was my uncle, and Big-nosed Jim told me he was killed." And she began to cry.

Now there was something so uncommonly friendless in the appearance of this ragged, bare-headed little girl crying silently by the door, not offering to come near the unconscious man, nor wailing loudly, as is the custom of street children in trouble, and something so pathetic in her soft voice, that we began to question her, but had got no farther than to find out that her name was Elsie, and that she had lived with Baldwin for a long time, but she thought not always, for she remembered playing with a beautiful young lady in a fine house "where it us allers warm, you bet," she exclaimed, spreading her blue hands out before the great coal stove, when the door opened again, and a policeman pushed in before him an old hag, blue-eyed, half dressed, and furious with anger. At the sight of her the little waif broke her story short off, and crept tremblingly over to the farthest corner, begging us pitifully not to let the woman take her.

"Arrah!" shrieked the beldam. "Jist let me git a hold on yez waist, and I'll—"

But her throat was lost as she was hurried back to her stony bedroom. Then the dying old sinner was carried to the ambulance, and it rattled off to the relief hospital, where Baldwin's name was entered upon the death-roll before another sunset.

Meanwhile Condon was trying to comfort the girl. Elsie told him about a long journey, and that afterward Baldwin had made her go about with him at night and sing in the saloons, had forced her to beg for nearly all her food and for the rags she called clothes, and to pick over the ashes in street barrels for gleanings of coal to burn in the broken stove that warmed his garret. Elsie explained her terror in the presence of the woman by saying that Baldwin had sometimes left her in the beldam's charge, when she had been beaten shamefully. Condon always thought this woman could have told him more about Elsie, but not feeling it strongly at the time, he never afterward was able to discover her.

The story Walter won from the little stranger touched him deeply, used as he was—and as we all come to be—to the woes of the poor in the metropolis; and most of all when, her confidence fully won, she said, simply, "I'll sing for you," and began a pretty melody, while we all listened to the sweet tones so strange in a police office; then, I think, his mind must have been decided, for when the bluff sergeant called out, "Well, what shall I do with the kid?" Condon's answer was quick, "I'll take care of her."

"To-night, Tom," he explained to me, "I think she had better go to a hotel, and to-morrow I'll take her home."

"And a fine time you'll have of it!" was my thought; but I said, "Oh, certainly," so off we went to a small German hotel we knew of, and put the little waif to bed.

Walter lived up in the Eighth Ward, with an aunt, who was a good old soul, but had rather more acridity mixed with her affection than any of us liked. It was a snug little home though, and the young man had good reasons to suppose he would succeed to its ownership.

I did not see Condon until the following evening at the Press Club, and I was very anxious to know how he felt about his generous act, after sleeping on it, and moreover, how he had introduced his ward to his aunt. I rather expected the complete disappointment of my enthusiastic friend's plans. He told me all about it at once. Elsie had been rather distrustful of him in the morning, but took a childish delight in the new clothes he had bought for her.

"She only needed some color in her cheeks," he averred, warmly, "to make her a positively pretty girl. But her comfortless look was an advantage in one respect, for it softened a little the muscular heart of that excellent old aunt of mine, and I believe Elsie will really win her. By Jove! I hope so."

Elsie did win her, and although at first her ignorance and street manners annoyed the old lady a great deal, she was partly coaxed and partly forced to be patient with the girl, and Elsie rapidly refined.

Not long after this I left New York and went to California for five years. I could tell you some stories about that too, if I had time; but no matter. I kept up a sort of connection with the newspapers through correspondence, and therefore

when my property in San Francisco was burned, and I came back as poverty stricken as ever, I had little difficulty in finding a position on the press, and was fortunate enough to get into the same office with my old time chum.

Condon had hardly changed his status. He was the regular Wall Street reporter now, and on a salary, but spent most of his energy in writing critical essays and in the study of political economy. For politics, in the abstract, he had a profound admiration; for ward caucuses, party machinery, and Congressional wranglings an intense disgust. He therefore might have occupied a far more prominent place in metropolitan journalism if he had not persistently chosen to keep this position, which suited him and favored his pet study. He seemed indifferent and indolent, and was so in many respects, for he loved quiet and his mood; yet when an emergency rose, he could summon tremendous activity. He carried about with him always much latent power.

Changes in his affairs contributed to this gentlemanly and studious neglect of stirring work. The death of his aunt left him with the little house in which they had lived and a comfortable income, and a staid old lady became his house-keeper.

As for Elsie, she had become the pet of the household, and Walter always spoke of her as his little sister. His aunt left a special bequest providing for her education, and she was happy at the boarding school up the Hudson.

So affairs went on. The purity of our September climate faded into sere October, and chilling airs bore premonition of winter. One day we were all in the office, awaiting assignments for the afternoon, when the hall boy brought in a visitor card. The editor glanced at it, grumbling at a visitor interruption, and tossed it toward Walter, calling out, "Go see what she wants, Condon."

Walter growled some anathemas on the head of the whole female sex—I think we were all in bad humor that morning—and took the card. I saw it.

Miss Hilda Brand,

written in a firm, upright, feminine hand, with no waste of ink in flourishes. Rising indolently, he sauntered out to the ante-room, leaving the door ajar, and thus permitting a glimpse of the lady—a rather young and slender woman, with a sweet and serious face, no duples nor long eyelashes, but a clear complexion, gray eyes full of purity and earnestness, and thin lips expressing self-reliance and strength. She was very plainly attired in dark clothing, and her simple hat was concealed in the folds of a veil.

Condon bowed in the attitude of sincere respect he held for women—an attention to their every word that had captivated many a one by its subtle flattery—and asked how he could serve her in place of Mr. Bruenell, whose excuses he presented.

"Thank you," she replied; "I am seeking employment as a stenographer. I have had experience in taking the proceedings of Congressional committees at Washington, and hope to be able to avail myself of newspaper work here. I can refer—"

"It's not necessary," Walter interrupted. "Reporting for us is a question of present ability rather than of antecedents." He was looking at her sharply, and I thought I saw her lip tremble at his austere and business like manner. Perhaps he saw it too, for he added, more kindly, "we have never made use of any feminine skill, but if you will wait a moment, I will consult with Mr. Bruenell."

It was soon understood among us that the fair stenographer was to be a member of the staff. She came, and did her work well. We readily got acquainted with her, but could never be familiar at all, and I believe that men generally disliked her. She was rather too mysterious to please us. Condon seemed to pay less attention to her than any one else; but one dark night when she had been kept until ten o'clock, and it had come on to rain, Condon remarked; "I will give you the shelter of my umbrella to the car, Miss Brand," and went in spite of her protest—a piece of solid audacity three reporters I knew of had ignominiously failed in within a fortnight.

Condon had a way of quietly taking possession of every lady he chose to speak to, as though he knew precisely what they wanted to do and ought to do far better than they did themselves; and this firm, quiet, polite persistence they generally found irresistible, knowing he would not be irritated by a rebuff.

One day there was to be an important inquest at Newark upon the cause of a fatal boiler explosion some days previous, and Miss Brand was sent down to take a short-hand report of the proceedings. She was expected to return between nine and ten o'clock in the evening. It was the 17th of March, and a cold, snowy day—the ugliest end of winter. After our early evening dinner Condon went over to Jersey City on an errand, and returning about nine o'clock, heard at Cortlandt Street that a railway train had fallen through a bridge on the Meadows. He glanced at his watch. "It's her train," he said to himself, with a chill feeling about the heart, and hastened by impulse rather than controlled by purpose, he ran across to the next wharf and leaped upon a boat just leaving the slip.

Now he had time to think. The night was cold, and the icy wind from down the bay swept before it snow and sleet, which rattled on the roof of the cabin, and slammed the doors with changing gusts. The storm was dense as a fog, and Condon found himself chafing with a nervous haste quite unusual to him, as the ferry boat stopped again and again in the ice, whistling her hoarse warning. He went out on deck and peered into the murky night, but got little consolation. Vexed with himself for feeling so much concern, it never occurred to him that ordinary humanity would require him to go on such an errand as this; that the fraternal interest of journalistic association would demand that he do what service he could to a sister reporter. He only saw possible harm to her individually. He called her "Hilda" in his thought, and not "Miss Brand," as always hitherto.

An engine and some cars were waiting to take the surgeons down to the wreck, and upon representing himself to be a reporter, Walter received a grudging permission to go also. The short ride ended, Condon was the first to alight and hurry toward a fire built by the ruined bridge, for there was no shelter near except a single overcrowded coach. He scanned the group of fingers around the blaze. Miss Brand was not among them. Trembling with excitement, he caught a black man's arm, and hurriedly described her.

"She's all O K, Sir!—not a scratch—I know her. Just tarter to the city down the track—couldn't hold her."

Condon waited to hear no more, but started to follow her. The track was rough and slippery, the sleet was changing into steady snow, and the darkness was intense, but he stumbled on with all speed, and presently thought he saw some one ahead. He halloed, but the wind drowned his voice, and he seemed to gain nothing upon the figure, until suddenly it disappeared, and the next instant, so deceiving was distance in the snow, a woman rose up from almost under his feet.

"Hilda!" he exclaimed.

"Who is it? Mr. Condon? Oh, I am so glad!"

"Are you hurt?" was his anxious question.

"No," she said, "but very tired," and she clung to his arm, her form shaking with fatigue and excitement and cold. His overcoat was off in an instant, and wrapped around her. Then he supported her firmly, and started on, for she would not go back.

"There are no roads on these meadows," he said. "We must walk back all the way to the ferry, for it will not do to stand still in this storm. Can you endure four miles of this?"

"With your help, I think so," she replied; and they struggled on. Suddenly stopped. "Your report, Mr. Condon! What will you write? You must go back."

He stopped also, but to find his unwieldy ulster more closely about her slight, thinly clad form.

"I did not come for news. I came for you."

She only held more tightly to his arm, murmuring, "I was pretty badly frightened," and walked on. Not far, however, for that moment they descried the relief train returning to the city with the wounded, and, managing to make the engineer hear their cries, were taken on board.

(To be continued.)

Frankness and Reserve.

It is curious with what avidity we form impressions of others, how frequently we treat others coldly by reason of hastily formed and arbitrary opinions originally conceived by them; how our imperfect knowledge of partial acquaintances causes us often to misunderstand and fail to appreciate them.

Primary opinions formed of others are seldom abandoned, never entirely obliterated. Some people always produce a favorable impression; others invariably leave something to be desired in them. The manners of some are easy and affable, they bow courteously, smile pleasantly, speak cheerily; a warmth and glow pervades them, which extends to others, and they throw a life and vigor into their words and acts that never fails to attract. They enter warmly into our projects, speak on topics of interest to us, adapt themselves immediately to every subject of discussion, and render themselves uniformly agreeable.

This geniality of manner and bearing renders domestic life enjoyable, and adds zest to every social enjoyment; it makes the household, as well as the ball-room, resound with hearty laughter and enjoyments; makes happy many a home, and fragrant with pleasant memories many an otherwise dreary hour. It cools the heated brow of thoughts, dries up the turbid stream of melancholy, washes away the hundreds of daily aggravations, and furnishes relief to the worried soul.

This spontaneity is found everywhere—among the rich and poor, old and young, thoughtful and otherwise. It creates the urbanity of the statesman, the influence of the popular leader, the suavity of the diplomat, the inspiration of the author, and the courtesy of the true gentleman. It is the most positive adornment of domestic life, and the surest guarantee of a pleasant home. In women it is the most remarkable, rendering their manners charming, their devotion spontaneous, and their conversation rapid, brilliant and vivacious. It has the most influence in rendering them ever welcome and beloved. Could all but estimate so valuable an acquisition, none would disregard it, and our daily enjoyments would be greatly augmented and increased thereby.

JOSH BILLINGS ON MARRIAGE.—By awl means Joe get married, if you have a fair show. Don't stand shivering on the bank, but pitch rite in and stick your head under and shiver it out. There ain't any more trick in getting married tharen the is in eating peanuts. Many a man has stood shivering on the shore until the river run out. Don't expect to marry an angel, they have been all picked up long ago. Remember Joe, you hain't a saint yourself. Do not marry for beauty exclusively; beauty is like ice, awfully slippery and thaws dreadfully easy. Don't marry for luv neither; luv is like a cooking stove, good for nothing when the fuel gives out. But let the mixture be some beauty, becomingly dressed, with about two hundred and fifty dollars in her pocket, a gud speller, handy and neat in the house, plenty of good sense, tuff constitution and by-laws, small feet, a light step; add to this sound teeth and a warm heart. The mixture will keep in any climate and will not evaporate. Don't marry for pedigree, unless it's backed by bank-notes. A family with nothing but pedigree generally lacks sense.



### To Start Perspiration.

When Rodolphus Young was under examination by the board that was to decide upon his fitness to receive a diploma as M. D., he chanced to find the sages in a critical mood; and it may be that they thought him a good subject for a little of their sportive hazing. Among the questions asked was this: "In case of excessive fever, sharp, rapid pulse, and dry, parched skin, with tongue also dry, what would you do for your patient?" "I'd get up a perspiration as quickly as possible," was the answer. "Exactly. And how would you do it?" Rodolphus named a few of the diaphoretics which he considered best adapted to the case. "Yes—and suppose they didn't answer?" The student mentioned a few more medicines which might be useful. "Well," pursued the chief of the board, "and what if that didn't answer?" In a rapid manner Rodolphus spun off the whole list of diaphoretics, stimulating and alterative, adding all the external appliances of heat, friction, water, and so forth, allowable. And yet the goggle-eyed examiner persisted. He seemed determined to make the neophyte pronounce the fatal words, "I don't know." "Well, said the chief of the torturers, as calmly and coolly as though he had been putting a sensible question, "and suppose all that would not answer, would you have any recourse left?" "Yes," cried Rodolphus, with a sudden snap of his jaws; "if none of that would start a perspiration, I would bring the patient up here and let you examine him." Rodolphus passed.

### Suggestions about Ironing.

Iron the back of the shirt first, then do the sleeves and the neck binding; be very careful not to stretch the neck. Now slip in the bosom board, and with a clean cloth wrung out of hot water rub the bosom well; if the bosom wrinkles anywhere, rub them toward the bottom. Iron quickly with a hot iron, but not hot enough to stick and scorch—with a little practice you will soon learn when the iron is just right; raise the plaits with the blunt edge of a table knife, and iron again. Now take the cloth, wrung out of clean hot water again, and rub the bosom over again. Take the polishing iron and rub that bosom, a small place at a time, until it "shines" to suit you, and the shine will depend very much upon the strength and perseverance with which you use that iron. It is no child's play to polish a bosom properly; you must bear down very hard with the rounded end of the iron and rub until the bosom is quite dry. The iron must not be too hot—a moderately hot iron is the best. Do the cuffs the same way. When the cuffs are made on the sleeves, do them after ironing the sleeves, and before you touch the bosom. After ironing the bosom, iron the rest of the front. Always keep your polishing iron very clean and bright; never let it get very hot; if you do it will be apt to roughen the smooth surface. It is not at all likely that you will be satisfied with your first or second attempt, but if you persevere in following the directions that I have given, you will succeed at last. If at the end of three or even six months you are able to iron and polish your husband's bosoms, collars and cuffs as they should be done, you will say that the time spent in learning has been well spent.

Do not iron calicoes with very hot irons—it will turn and fade the colors more than the washing. Some ladies always iron calicoes on the wrong side, but will find they will keep clean longer if ironed on the right side.

Iron lace and embroidery on the wrong side, and iron until quite dry, or they will not look nice.

Iron silk handkerchiefs and old silk when quite damp, on the wrong side, and with only a warm iron, as some colors are apt to turn or fade.

To iron flannels, take from the line when not quite dry, roll up a short time, and press with an iron only moderately heated. Pressing does not make the flannel feel so stiff and hard as rubbing with the iron, and very hot irons turn the fabric yellow.—[Ohio Farmer.]

It takes something more than good agricultural productions to make a paying agricultural exhibition now in the days of competition. The glass hen and royalty have done much; the hurdle-races and trials of speed will draw; baby shows and pretty girls have eclipsed farm stock. Michigan State Fair, however, carries off the palm this year. They offer 40 acres of land to the first couple that go before the grand stand and be united in wedlock.

### Rules for Visiting.

As a general rule, never invite yourself to stay with any one; do not take such a liberty even with a near relation. Many persons have a habit of making unexpected appearances; they should remember that intrusions of this kind are sure to be more or less resented, and they run the risk of making themselves unwelcome guests. Others in an off-hand manner announce their intention of paying a visit, thereby causing a considerable amount of embarrassment; for though the host may not be averse to the self-invited guest's society, yet the liberty taken may cause great inconvenience.

Be not less particular that you do not take a stranger, or an uninvited person, with you when you pay a visit—unless, of course, you are specially requested to do so. If it should happen that you receive an invitation at a time when you have a friend staying with you, write by return mail declining the invitation, giving the presence of your friend as the reason for your doing so. It is then the province of the giver of the invitation to write and extend the invitation to your friend also. Then you may accept; but do not take the initiative yourself and say you would be glad to come if you could bring So-and-so with you; as your host may be so circumstanced that to say "yes" or "no" would be equally disagreeable.

A considerate visitor will be careful not to keep his host and hostess up to a later hour than that at which they habitually retire. Thoughtless persons frequently occasion much vexation and inconvenience in this way.

In many houses there is a tacit signal that bedtime has arrived by the appearance of a tray with wine, soda-water, biscuits, etc. After partaking of this light refreshment, candlesticks are handed round among the ladies, who then retire to their own apartments. Gentlemen leave the drawing room at the same time; and for them it is permissible to adjourn to the smoking-room; for a short time before retiring for the night—this of course, is quite optional, and does not entail the presence of the host.

When staying at a friend's house, a visitor should never take a book from the library to his own room without requesting permission to borrow it. Many people place the highest value on their literary possessions. When a book is lent, care should be taken that it sustains not the slightest damage, either within or without.

No guest should be continually dependent upon her host for entertainment, but should throw herself upon her own resources, and endeavor to amuse herself as much as possible, and should remember, that however welcome she may be, her presence is not always wanted.

From breakfast to luncheon, as a usual thing, visitors should not expect any attention from host or hostess. Both require some time in order to make necessary arrangements; many matters may require the supervision of the hostess, while the host avails himself of this period to occupy himself with his personal concerns. The visitor, too, finds this a convenient time for writing, taking a stroll, reading, etc., in fact, do anything in reason, except look for any attentions from her entertainers during this portion of the day.

**FEMALE SOCIETY.**—What is it that makes all those men who associate habitually with women superior to others who do not? What makes that woman who is accustomed and at ease, in the society of men, superior to her sex in general? Solely because they are in the habit of free, graceful, continued conversations with the other sex. Women in this way lose their frivolity, their faculties awaken, the delicacies and peculiarities unfold all their beauty and captivation in the spirit of intellectual rivalry. And the men lose their pedantic, rude, declamatory, or sullen manner. The coin of the understanding and the heart changes continually. Their asperities are rubbed off, their better materials polished and brightened, and their richness, like the gold, is wrought into finer workmanship by the fingers of women than it ever could be by those of men. The iron and steel of their characters are hidden, like the protection and armour of a giant, by studs and knots of good and precious stones, when they are not in actual warfare.

Says a French critic: "I like a girl before she gets womanish, and a woman before she gets girlish."

### Sensible Almost to the Last

Mr. and Mrs. Tom Mulcahy lived on a farm. They were shrewd and thrifty, and had the reputation of being "close." Finally, Mrs. Mulcahy sickened and was about to die. Finding herself nearly the end, she expressed a desire to put things in order before that event occurred, and old Tom prepared to listen.

"Tom," said Mrs. Mulcahy, "there's Mrs. Smith, up at the crossing, she owes me \$1.80 for butter; see 'ye get it."

"Sensible to the last, my dear; sensible to the last," said Tom. "I'll get it."

"Then there's Mrs. Jones, up at the creek; she owes me \$1.50 for chickens."

"Ah! look at that, now, for a mind; she forgets nothing."

"And Mrs. Brown, in the village, she owes me \$2.30 for milk."

"D'ye hear that? Sensible to the last; sensible to the last! Go on, my dear."

"And—and—"

"Yis!"

"And Mrs. Roberts, at the toll-gate, I owe her—"

"Ah! poor dear! poor dear!" broke in old Tom, hastily; "how her mind does be wandering! Sure we've allowed her to talk too much entirely, so we have!"

**LEAP YEAR'S DIFFICULTIES.**—He was a nice young man, with cane, high hat and patent leather boots. He strolled leisurely down Fourth avenue, puffing daintily upon a cigarette, and occasionally twirling the waxed ends of his moustache. He was accosted by a stout woman with a florid complexion.

"Top of the mornin' to ye, Mister Charley," said she.

"Good morning, Mrs. McGuinness," said the nice young man.

"Me darlint boy, would ye—" and she bestowed a bewitching smile upon him.

He dodged out of her reach. The recollection that it was leap year rushed upon him, and he answered:

"Madam—really—I can't—I am very sorry if I cause you pain—but my affections have already been bestowed upon another—and madame—I can't—I can't marry you."

She gazed at him in astonishment, and then said, indignantly, "Who axed ye to marry me? The idea of the likes of me, a poor lone widdy, wid four children to support by washin', axin' ye to marry me; I was only goin' to ax ye for that dollar for washin'."

He sighed, gave her a dollar, and walked sadly away.

**PROPORTIONS OF THE HUMAN FIGURE.**—The proportions of the human figure are six times the length of the feet. Whether the form is slender or plump, the rule holds good. Any deviation from it is a departure from the highest beauty in proportion. The Greeks made all their statues according to this rule. The face from the highest point of the forehead, where the hair begins, to the chin, is one-tenth of the statue. The hand, from the wrist to the middle forefinger, is the same. From the top of the chest to the highest point of the forehead is a seventh. If the face, from the roots of the hair to the chin, is divided into three equal parts, the first division tells the place where the eyebrows meet, and the second the place of the nostrils. The height from the feet to the top of the head is the distance from the ends of the fingers when the arms are extended.

Mothers, there is another thing for you to do. Frolic with your children. Leave out that extra group of tucks from the little skirt, and have a romp in the fields with the boys and girls. Give up the dessert for dinner some day, and devote yourself to the sunshine, and be a child again. Your children will forget about the pies you make, and the memory of, tucked shirts will last but an hour; but the young hearts will never forget that beautiful day when mother left her work and went out in the fields to gather wild flowers with them. Years after, the sight of a daisy will bring back that day; a blue violet will recall mother's eyes, and a bird's song thrilling suddenly from some leafy bough will awaken sweetest memories of that bright spot in childhood.—[Zion's Herald.]



## Minnie May's Department.

MY DEAR NIECES.—As the autumn days are becoming cold very fast, it makes us think of warmer dress and what shall we get for winter. All wool plaids are to be worn very much this winter for dresses. They are very serviceable and should be made quite plain. A nice style is to put a box plaited founce on the underskirt, and a polonaise bound round the bottom with the same, with dark green, blue or whatever best matches your plaid; velvet collar and cuffs. All heavy goods are to be made quite plain. Some of the Americans are not wearing a particle of trimming, merely having the skirt shirred around the top next to the waist; plain waist and wide belt. But we think this is almost going to the extreme. A great many of the fashionable costumes of the season unite two varieties of material. The skirt of the costume is in walking length, and comprises a front gore, a gore for each side, and a back breadth. The gores are fitted close to the figure at the top, while the back has a good amount of fullness, and is supplied with tapes run through a casing, a little more than half way from the top, to regulate the closeness of the skirt in accordance with the fancy of the wearer. Plain material is used in the skirt, and the bottom is trimmed with three rows of narrow knife plaiting, while the front gore is ornamented with rows of plaiting which gradually decrease in length toward the top. The drapery is of brocaded material, and simple in its arrangement. It consists of three divisions, two of which overlie the front, almost meeting at the top, and flaring backward so that their lower portions extend half way across the side gores. The drapery and the back breadth of the skirt are gathered together, and both are sewed to a belt, an opening being finished at the left side. Now this finished with a neat basque, with a pretty collar and cuffs made of the brocade, and smoked pearl buttons, makes a very pretty suit. But you can scarcely go amiss in making your dresses, as everything and every style is fashionable. Of course the lighter the material the more trimming it requires. I do not think it pays to get poor dress goods, as the good are so durable that they often do for two seasons.

MINNIE MAY.

## Answers to Inquirers.

JOSIE & ELIZA.—Thanks for the puzzles; we will use some of them next month. An autograph album would be a very nice present. Below I give some verses for one:

Go, little book, thy destined course pursue,  
Collect memories of the just and true;  
And beg of every friend so near  
Some token of remembrance dear.

I've turned these pages o'er and o'er  
To see what others have written before,  
And in this quiet little spot  
I plant the sweet "Forget-me-not."

May you ever be happy,  
Live at your ease,  
Have a good husband  
And do as you please.

Live for those that love you,  
For those whose hearts are true,  
For the Heaven that smiles above you  
And the good that you may do.

— is your name.  
And single is your station,  
Happy will be the man,  
Who makes the alteration.

You ask me for something original,  
Pray tell me how to begin,  
For there is nothing original in me  
Except original sin.

J. S.—It is not necessary to shake hands; it is much better just to raise your hat when either meeting or leaving a lady, but if she should offer her's, certainly take it.

B. P.—When rising from the table should the chair be placed under the table as found or should it be put back against the wall? **ANS.**—The chair is usually left wherever it may happen to be as you rise from the table; you may push it towards the table to be out of the way of others passing, but a lady need not trouble much about her chair. If there are gentlemen or waiters, they usually draw it out of the way when the lady rises. **2nd.** Should we always bow to friends whom we may meet on the street, although we may meet them several times successively? **ANS.**—No, bow the first time only, afterwards you may look pleasantly at each other or on quiet streets intimate friends sometimes make remarks when passing.

## RECIPES.

## PUMPKIN PIE.

One quart of strained pumpkins, two quarts of rich milk, one teaspoon of salt and two of ginger cooked with the pumpkin, six well beaten eggs and a half-teaspoon of sugar.

## CURE FOR NEURALGIA.

A noted cure for neuralgia is hot vinegar vaporized. Heat a flat-iron sufficiently hot to vaporize the vinegar, cover this with some woolen material, which is moistened with vinegar, and the apparatus is then applied at once to the painful spot. The application may be repeated until the pain disappears.

## SPIRITS OF AMMONIA.

A solution of one and a quarter of a pound of white soap and three-eighths of an ounce of spirits of ammonia, dissolved in twelve gallons of soft water, will impart a beautiful and lasting whiteness to any flannels dipped in it, no matter how yellow they have been previous to their immersion. After being well stirred round for a short time, the articles should be taken out and well washed in clean cold water.

## GRAPE CATSUP.

Five pounds of fruit, three pounds of coffee sugar, one pint of vinegar, one tablespoonful of cinnamon, one of allspice, one of black pepper, one-half of cloves, all ground, and one half of salt. Pulp the grapes and boil the skins in clear water until tender, boil the pulp separately, and strain to remove the seeds. Mix your spices in a little cold vinegar, put all together, and boil about five minutes. This is excellent. The recipe will answer for any sour fruit.

If your coal fire is low throw on a tablespoonful of salt, and it will help it very much.

A little vinegar put into sausage meat improves the flavor.

In icing cakes, dip the knife frequently into cold water.

A small piece of charcoal in the pot with boiling cabbage removes the smell.

Clean oilcloth with milk and water; a brush and soap will ruin them.

Tumblers that have had milk in them should never be put in hot water.

A teaspoonful of tomatoes in the gravy of either roasted or fried meats is an improvement.

In boiling meat for soup, use cold water to extract the juices. If the meat is wanted for itself alone, plunge in boiling water at once.

You can get a bottle or barrel of oil off any carpet or woolen stuff by applying dry buckwheat plentifully and faithfully. Never put water to such a grease spot, or liquid of any kind.

The skin of a boiled egg is the most efficacious remedy that can be applied to a boil. Peel it carefully, wet and apply it to the part affected. It will draw off the matter and relieve the soreness in a few hours.

Beef having a tendency to be tough can be made very palatable by stewing gently for two hours, pepper and salt, taking out about a pint of liquid when half done, and letting the rest boil in the meat. Brown the meat in the pot. After taking up, make a gravy of the liquid saved.

## Other Fellows Think So Too.

There's just one thing a man can have  
In all this world of woe and strife,  
That makes the business not too bad,  
And that one thing's an easy wife.  
Dost fancy that I love my girl  
For rosy cheeks or raven hair?  
She holds my heart because she laughs—  
Because she laughs and doesn't care.

I put my boots just where it suits,  
And find them where I put them, too;  
That is a thing, you must allow,  
A chap can very seldom do.  
I leave my papers on my desk;  
She never dusts them in a heap,  
Or takes to light the kitchen stove,  
The very ones I want to keep.

On winter nights my cosy dame  
Will warm her toes before the fire;  
She never scolds about the lamps,  
Or wants the wick a trifle higher.  
On Sundays she is not so fine  
But what her ruffles I can hug;  
I light my pipe just where I please,  
And spill the ashes on the rug.

The bed is never filled with "shams"—  
A thing some women vilely plan  
To worry servants half to death,  
And spoil the temper of a man.  
She lets me sleep to any hour,  
Nor raises any horrid din  
If it just happens, now and then.  
To be quite late when I come in.

I tell you Jack, if you would wed,  
Just get a girl who lets things run;  
She'll keep her temper like a lamb,  
And help you on to lots of fun.  
Don't look for money, style, or show,  
Or blushing beauty, ripe and rare;  
Just take the one who laughs at fate—  
Who laughs, and shows she doesn't care.

You think, perhaps, our household ways  
Are just per chance a little mixed;  
Or, when they get too horrid bad,  
We stir about and get things fixed.  
What compensation has a man  
Who earns his bread by sweat of brow,  
If home is made a battle-ground,  
And life one long, eternal row?

—Harper's Magazine.

## How to Save Before Cooking.

Bones and gristle are thrown away on cooked meats, as indeed they must be—charred to be useless, where a French woman would cut both out before cooking, crack the bone and make a good soup out of what is entirely wasted here. Always have meat boned for roasting. The butcher does it very skillfully to preserve the shape of the joint, and the rolled meat tied up with a string are really as presentable in ribs of beef or shoulder of mutton, as when the carver has to work on them. Some housekeepers cut off the long tough ends of ribs of beef, that are of so little use after the joint is roasted, and either put them into the soup pot or into a pickle for corning. They make a good supper relish in this way. The fat, too, in most meats, is wasted by over-cooking. A portion is needed to be left in the joint, but the house-keeper who lets the "dripping" dry up in the oven and then has to buy lard to fry in, burns the fat at both ends.

One of the prettiest of Miss Dod's lectures was the one on "clarified fat," showing how every scrap may be made useful, and save considerable money to the house. In marketing for vegetables most of these are bought by taste. Many of these—roots that are largely water and sugar or starch, are preferred to the more nourishing ones that grow above ground.

Potatoes are bulky food, and give a sense of fullness, and most families would feel it was not a dinner without this familiar vegetable. But the beans and peas and lentils, these last to be found in German shops, have much more nourishment for their bulk either for soups or as vegetables.

The cabbage is a favorite and rich food. Doctors recommend it in the form of sauer kraut, its fermented form; rather than in its fresh cooked state. It has considerable gluten in its leaves, and it is the gluten vegetables rather than the starchy roots that have the most strength in them. —[Rural Home.



**For Those Who like to Knit.****HANDSOME KNITTING STITCH.**

This is an openwork pattern, particularly pretty for shawls, curtains and cloths. Cast on any number of stitches divisible by six.

1st row—Knit one, thread forward, slip 1, knit 1, draw the slipped stitch over the knitted one, knit 1, knit 2 together, thread forward, repeat to end of row.

2nd row—Purl.

3rd row—Knit 2, thread forward, slip one, knit 2 together, draw the slipped stitch over, thread forward, knit 1, repeat to end of row.

4th row—Purl.

5th row—Knit 1, knit 2 together, over, knit 1, over, slip 1, knit one, draw the slipped stitch over, repeat to end of row.

6th row—Purl.

7th row—Knit 2 together, \*thread forward, knit 3, thread forward, slip 1, knit 2 together, draw the slipped stitch over, repeat from \*, finish with 1 plain.

8th row—Purl.

Begin again at first row.

**A PRETTY EDGING.**

Cast on 5 stitches and knit across plain.

1st row—Slip 1, knit 1, over twice, narrow, knit 1.

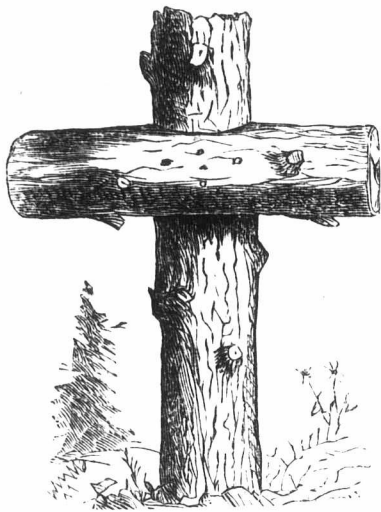
2nd row—Knit 3, purl 1, knit 2.

3rd row—Slip 1, knit across plain.

4th row—Knit plain.

5th row—Slip 1, knit 1, over twice, narrow, over twice, narrow.

6th row—Slip 1, knit 1, purl 1, knit 2, purl 1, knit 2.



ROUGH DESIGN.  
(See description page 224.)

7th row—Knit plain.  
8th row—Bind off 3, knit 4.  
Repeat from first row.

**TO CROCHET THE STAR STITCH.**

You can make the rows of holes run straight and the piece you are making come straight by commencing in the first long stitch instead of the first round hole; finish each stitch in a long stitch and widen one stitch at the last end. Now if you want something different, crochet one row of star stitch, and when you get to the end, in place of breaking off the yarn, turn around and make the same back on the other side. It is then beautifully ridged and makes prettier hoods than those made the other way.

Broil steak without salting. Salt draws the juices in cooking; it is desirable to keep these in if possible. Cook over a hot fire, turning frequently, searing on both sides. Place on a platter, salt and pepper to taste.

Why is a handsome woman like a locomotive? No, you're wrong. It is not because she sometimes draws a long train; it is not because she indulges in "sparks," it is not because she has something to do with a switch; it is not because she transports the male; it is not because she may have a head-light; it—in fact, a handsome woman is not in the least like a locomotive, not even when she is a little "fast" and blows up her husband.

**How to Set a Table.**

I make no pretensions to fashion, but consult comfort and convenience. My table ware is plain white. I like it best of all, for it always looks neat, and can be easily matched if any gets broken. I have enough to use as many dishes as are needed. I like white table linen much better than colored, as to my taste a table looks more wholesome in pure white. Upon the middle of one side of the table the dining plates are set in a pile. The knives and forks are laid for each person, with napkins. The goblets are laid in front of the napkins, and a lump of ice is put into each goblet. During the warm weather, a large water-pitcher and a pitcher of milk are also placed at each end of the table. The individual butter plates are laid on the right hand of the goblets. The carving knife and fork are laid by the plates. The castor in the centre of the table. A plate of bread is on each end of the table—also one of doughnuts (which is a regular stand-by in farm houses): white bread and brown bread have each a separate plate.

The meat is served upon a platter, set right in front of the pile of plates; potatoes in a covered dish to the right of the platter, and whatever other vegetables are prepared are set in covered dishes at the left of the meat. The gravy tureen is placed between the potatoes and meat. Sauces for vegetables are set by the sides of the dishes containing them. The head of the family always waits on the table, and the mistress sits opposite. Pies, puddings, or whatever is for desert, are placed at her right hand, with small plates or saucers, as needed, and she serves them to the members of the family at the proper time. If coffee is served at dinner, the housewife pours around.

It is very desirable to have everything on the table when dinner is ready, as it is very disagreeable to have to keep jumping up to get something. We like to pass the butter around, and let each one take what is wished. Individual butter dishes are a real saving, as the butter is entirely by itself, thereby avoiding waste, besides being far more convenient. Pickles are passed around the table. It is expected, at the close of the meal, that each individual will place the knife and fork together upon the plate, and fold the napkin and leave it by the side of the plate.

This is the every-day arrangement, and if unexpected guests happen in, we do not have to re-set the table, but just make them welcome to our daily fare. If company is invited, of course we change the plates after each course, and follow the customs of the times, but it makes much work that we generally dispense with.—[Farmer's Wife in Country Gentleman.

**German Wives.**

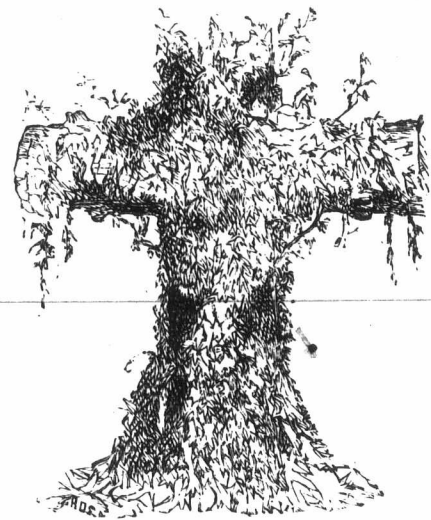
The culinary art forms a part of the education of women in Germany. The well-to-do tradesman, like the mechanic, takes pride in seeing his daughters good housekeepers.—To effect this object, the girl, on leaving school, which she does when about fourteen years of age, goes through the ceremony of confirmation, and then is placed by her parents with a country gentleman, or in a large family where she remains one or two years, filling what may be termed the post of a servant, or doing the work of one. This is looked upon as an apprenticeship in domestic economy. She differs from a servant, however, in this, that she receives no wages; on the contrary, her parents often pay for the care taken of her as well as her clothing. This is the first step taken in her education as a housekeeper. She next passes, on the same conditions, into the kitchen of a rich private family, or into that of a hotel of good repute. Here she has control of the expenditure of the servants employed in it, and assists personally in the cooking, but is always addressed as Miss, and is treated by the family with deference and consideration. Many daughters of rich families receive similar training, with this difference, however, that they receive it in a princely mansion or royal palace. There is a reigning queen in Germany at the present time who was educated in this way. Consequently the women in Germany are perfect models of economy.

What part of the eye is like the rainbow? The iris. What part is like the schoolboy? The pupil. What part is like the globe? The ball. What part is like the top of a chest? The lid. What part is like the piece of a whip? The lash. What part is like the summit of a hill? The brow.

**How to Make Moss Baskets.**

Very beautiful baskets for holding flowers can be made of the longer and more feathery kinds of mosses. We have made them often, and never do either garden or wild flowers look more lovely than when clustered upon a verdant border of that most delicate and beautiful material, which by proper management may be made to preserve its freshness and brilliancy for many months. We will here give directions for their manufacture:—A light frame, of any shape you like, should be made with wire and covered with common paste-board or calico, and the moss, which should first be well picked over and cleansed from any bits of dirt or dead leaves which may be hanging about it, gathered into little tufts and sewed with a coarse needle and thread to the covering, so as to clothe it thickly with a close and compact coating, taking care that the points of the moss are all outward. A long handle, made in the same manner, should be attached to the basket, and a tin or other vessel, filled with either wet sand or water, placed within, to hold the flowers. By dipping the whole structure into water once in three or four days, its verdure and elasticity will be fully preserved, and a block of wood, about an inch thick and stained black or green, if placed under the basket, will prevent all risk of damage to the table from moisture. To make such baskets affords much pleasant, social amusement for children, who will find a constantly renewed pleasure in varying their appearance.—[Floral Cabinet.

The Czar has a nice little income—a trifle of \$25,000 a day. The Sultan gets \$18,000 a day, the Emperor of Austria \$10,000, the Emperor of Germany \$8,200, the King of Italy \$6,400 and the King of the Belgians \$1,643.



ORNAMENTED DESIGN.  
(See description page 224.)

"Ladies and gentlemen," said an Irish manager to his audience of three, "as there is nobody here, I'll dismiss you all. The performance of the night will not be performed, but will be repeated tomorrow evening.

"Oh! Mister," said an old lady after a bicycle had just passed her, "just now I seed a wagon-wheel runnin' away with a young man. You kin believe it or not. I wouldn't if I hadn't seed it myself."

Two young city ladies in the country were standing by the side of a wide ditch, which they didn't know how to cross. They appealed to a boy who was coming along the road, for help, whereupon he pointed behind them with a startled air and yelled "snakes!" The young ladies crossed the ditch at a single bound.

The effect of mingling with new people who have new methods of thought, is very salutary. Always to see the same way produces a stagnant condition of the mind and heart that is very distressing to behold. There are thousands of invalids who might be greatly benefitted by getting away from home, to mingle with the magnetism of the world as it courses in its accustomed rounds. And there are mental invalids who need the same change, to get their hearts enlarged, and let in a little more of the great light of life. Outside influences are very valuable to those who at home have been well trained by healthful influences in early youth, so that they can avoid the snares and pitfalls into which they so often blindly fall.



**Ancle Tom's Department.**

MY DEAR NEPHEWS AND NIECES.—It seems to me a very short time has elapsed between this letter and my last, but already a month has flown swiftly by. "Tempus fugit" is a very old proverb but nevertheless a true one, and the elder we grow the more we realize the truth. I am sure you have often seen pictures of Father Time, represented as being very old and carrying a sickle in his hand, with which he removes everything that impedes his course. He waits for no one, rich and poor are treated alike by him, and "time once lost can never be regained." I wonder if you have never regretted the many idle moments spent by you either at school or at home, and wished so much that you could recall them! but they have passed quietly on, never to return. I must not convert this letter into a sermon, though a lecture now and then has a very salutary effect; but I am afraid if you had all lectures you would soon tire of my letters. I suppose a great many of you attend school. Now that you have had such a nice long holiday, you should be able to commence your studies with renewed vigor. I know that at first it is rather hard to settle down to earnest study—to some there are a great many more pleasant occupations. However you will be able to enjoy those better, by and by, if you make use of the present time, and in after years you will look back on your school days as the pleasantest time of your life. You will hardly believe this, but "experience is the best teacher," and after a time you will acknowledge that I am right.

UNCLE TOM.

**PUZZLES.**

**81.—ENIGMA.**

My first is in ducat, my second in gold.  
My third is in courage, my fourth is in bold.  
My fifth is in whimper, my sixth is in scream.  
My seventh is in thinking, my eighth is in dream.  
My ninth is in acorn, my tenth is in seed.  
My eleventh is in hunger, my twelfth is in need.  
My thirteenth is in silence, my fourteenth in death.  
My fifteenth is in living, my sixteenth in breath.  
You may spell out my name, you may have me in view.  
But I'm still an enigma to all but a few.

**82.—NUMERICAL CHARADE.**

I am an ancient historian composed of 8 letters.  
My 5, 7, 3, 8 is a pet animal.  
My 6, 2, 3, 4 conveys water.  
My 1, 2, 8, 6 is a nickname.

**83.—WORD SQUARE.**

First, an explosive article. Second, a mixture.  
Third, manner. Fourth, in a servile state.

**84.—DOUBLE ACROSTIC.**

Frozen vapor. Fear. A fruit. A form of government. A member of a religious community. Vessels. Answer.—Tempests, and their consequences.

**85.—ENIGMA.**

My first is in cat, but not in dog.  
My second is in marsh, but not in bog.  
My third is in hand, but not in fist.  
My fourth is in rubber, but not in whist.  
My fifth is in cow, but not in milk.  
My sixth is in woollen, but not in silk.  
My seventh is in brays, but not in neighs.  
My whole is a poet whose rhythmic lays  
Are writ in English of ancient days.

**86.—CRYPTOGRAM.**

Geb Utoltg zhf h loxhphgo bto  
Hgf vemxt h otaxve weyx  
Hgf ozrp rgoe ozz Dhoxgfk  
Tg axkko urtpx zx pleyx

T dhax ixdrpx cerk zekpx berof deax  
Hgf ts T bxoo sektufx  
Ac zho hgf btu btoo peeg ix zxxk  
Ozxc hxx rleg ozz hehf



87—ILLUSTRATED REBUS.—GOOD ADVICE.

**Answers to September Puzzles.**

76—Cincinnati.

77—BONE  
OVAL  
NAIL  
ELLA  
C  
ALE  
78—CLEAR  
EAR  
R

79—C o r d  
O d o r  
W h y  
P l a i d  
E m b r a c e  
R a i n  
Cowper. Dryden.

80—Landscape.

**Names of Those Who Sent Correct Answers to September Puzzles.**

Minnie Howell, Charlie Pancroft, Lizzie Munroe, Albert Lewis, Bessie Lee, George Wyld, Lillian Kitchen, Randall Hammond, Willie Russ, Clover Forbes, Jessie McIntosh, Sarah Walker, Joseph Henderson, Emily Woods, Arthur Springer, Carrie Jell, J. M. Moore, Tom Stevens, A. C. Maynard, Arthur Springer, Josie and Eliza Clarkson.

**HUMOROUS.**

An old farmer's wife who had a servant that was notorious for breaking dishes, on one occasion fell asleep in church. During her slumbers her elbow unluckily overturned a Bible, when to the amusement of her fellow-worshippers, she was heard to mutter in a very audible voice—"Another bowl, ye hissie."

"Going to leave, Mary?" "Yes, mum; I find I am very discontented." "If there is anything I can do to make you comfortable let me know." "No, mum, it's impossible. You can't alter your figger to my figger, no mor'n I can. Your dresses won't fit me, and I can't appear on Sundays as I used at my last place, where missus' clothes fitted 'xactly."

ALL BUSY LYING.—"Where were you when the first shot was fired?" asked the lawyer.  
"I was lying down on the sofa."  
"Where was your husband?"  
"He was lying down on the back gallery."  
"And your children—where were they?"  
"They were lying down on the bed, fast asleep."  
"Any other member of your family lying down?"  
"Well if my brother-in-law was here I expect he would be lying down in the court-house. He is a lawyer unless he has reformed recently."

A gentleman the other day saw his little daughter dipping her doll baby's dress into a tin cup, and inquired: "What are you doing my daughter?"  
"I'm coloring my doll's dress red."  
"What with?"  
"With beer."  
"What put such a foolish notion into your head, child? You can't color red with beer."  
"Yes, I can, pa; because ma said it was beer that colored your nose so red!"  
And the gentleman had business that required him to be down town immediately.

In some literary societies it is customary at the close of the session to have a "funny night," when all the orations, essays, and declamations are humorous, and when some amusing or ridiculous question is set for discussion. On one such occasion the following speeches, written by a Randolph Macon, student, were (in substance) delivered on the question, "Which is the mother of the chicken, the hen that laid the egg or the one that hatched it?" Mr. J. on the affirmative; Mr. C. negative.

Mr. J.—Mr. President:

This silly-sounding question, sir,  
Concerning fowls' increase  
Was specially designed, I think,  
To show us up as geese.

But since I'm bid to speak on eggs,  
I'll not eggs-cuse nor shrink;  
And as a speech you will eggs-act,  
I'll eggs-press what I think.

That like begets that which is like  
Is one of nature's laws,  
And laws of eggs we sure must cite  
In this eggs-citing cause.

The mother of a calf's a cow,  
That of a wren's a wren.  
And thus the mother of a chick  
Must surely be a hen.

Now set a duck on a hen's egg,  
And, granting you have luck,  
Pray, from that egg say will there come  
A chicken or a duck?

And if you want a Shanghai chick  
Say, gentlemen, I beg,  
Pray would you set a Shanghai hen  
Or get a Shanghai egg?

Will a Shanghai hen hatch a Shanghai chick  
From a common egg, I beg;  
I'll take my chance with a common hen,  
And a genuine Shanghai egg.

And the Shanghai pullet testifies  
Whenever she does lay,  
She cackle-ates a Shanghai chick  
Is started on the way.

Then let your hatchers strut around,  
And cluck, and scratch and pick;  
But sir, the hen that laid that egg  
Is mother to that chick.

**Too Bad.**

The following is vouched for by one of Philadelphia's divines: A young clergyman having agreed to supply the pulpit of an older brother absent from home, escorted to church the daughter of the pastor, and after seeing her safely in her father's pew, ascended to the pulpit, uncaring that this natural attention to the young lady was sufficient to excite lively imaginations and inquiries in the audience. Upon reading the hymn to be sang, the young clergyman was surprised to perceive evident efforts in the congregation to suppress laughter. The daughter of his friend possessed the mellifluous name of Grace, and all unsuspecting of that fact, he had chosen the hymn beginning with the words "Amazing grace," and proceeding with:

'Twas grace that taught my heart to fear,  
And grace my fears relieved,  
How precious did that grace appear  
The hour I first believed!

Through many dangers, toils and snares,  
I have already come;  
'Tis grace has brought me safe thus far,  
And grace will lead me home.  
—Harper's Magazine.

"My boy," said a father to his young son, "treat every one with politeness; even those who are rude to you. For remember that you show courtesy to others, not because they are gentlemen, but because you are one."

A colored banker, much alarmed by the failure of several other banks in his neighborhood, closed his own establishment. A man knocked at his barred door. "Who's dar?" cried the banker. "Open the door!" called the man. "Don't care whether the bank's closed or not," cried the stranger, "I left a pair of new boots here yesterday and I want them." "Presently the door was thrust partly open and one boot pushed out, with the remark: "We is only payin' fifty cents on the dollar to-day."



**A Farmer Who Robbed His Boy.**

Last spring a farmer found in his flock a lamb which the mother would not own. He gave it to his son, a boy fifteen years old, who saved it and raised it. The boy called it his all summer, all the family called it his, and it was his. But this fall, when his father sold the other lambs, he let this one go with them, and taking the pay for it, tucked it into his big wallet and carried it off to pay taxes or put it in the bank. Now this farmer did not intend to do anything wrong. Least of all did he intend to wrong his boy. Probably he did not give the matter much thought anyway; and if he did he considered the boy's ownership of the lamb a sort of pleasant fiction, or reasoned that the boy, having all his needs supplied out of the family purse, did not need the pay for the lamb, and it was better to put it into the common fund. But for all that, taking the lamb and selling it in that way, and pocketing the proceeds, was stealing. No, it was robbery; and as between this boy and his father, one of the meanest robberies that could be perpetrated. Not only this, but by robbing the boy of that two dollars the farmer did more to make the boy discontented and drive him away from home than he can undo with ten times that amount. A boy is a little man, and if he has got any of the gander and grip to him when he grows up, he begins at an early age to feel that desire to own something and add to the property subject to his ownership, which is at once the incentive to effective work and the motive which reconciles men to their condition. No matter how well the boy's wants are provided for from a fund which is common to the family, he takes no particular interest in adding to that fund because he does not feel that it is his, and he tires of labor and thought, the proceeds of which he must share with several others; but give him a piece of property of his own, to manage as he pleases, to keep or sell or change, and let him feel that his ownership is secure and that his loss or gain depends upon his own endeavors, and he will work cheerfully and contentedly.

**How He Would Do It.**

Young Bummelhans has just been discharged by his employer, Old T-wopercent. The facts are as follows: Bummelhans had just returned from a trip over the State. His trip had been very satisfactory to himself, perhaps, but not to his employer. He had spent a great deal of money in buggy rides and one thing or another, and had taken very few orders. When Bummelhans called to see the old man the latter was mad. He said: "I don't believe you makes any effort to sell goods. Ven I wash a drummer I always sold goods to de merchants no matter ven dey don't want any. I made de acquaintance von everypody."

"How did you manage to sell goods when you were a drummer?"

"I vill show you all about dat. Schoost you sits down in chairs. You pees a country merchant I plays now de drummer."

"All right," says Bummelhans, "I'll be a country merchant, and I'll show you how they do."

Bummelhans pretended to be writing at his desk, and old T-wopercent came up from one side, bowing and scraping.

"Goot morning. Can't I sell you some goots?"

"Who are you?" says Bummelhans, looking up.

"I travels for de Galveston firm of Twopercent."

"You do, do you? So you travel for that infernal old thief, do you? Take that!" and to impress upon his employer the difficulties of drumming up a trade, Bummelhans kicked the old man four or five times, pushed him up in a corner and choked him for a while, and then told the old gentleman, who was speechless with bona fide rage, "If you ever come in here again I'll not leave a whole bone n your carcass."

**A DOG CRAZED WITH GRIEF.**—The Providence Journal tells of a family in Providence, R. I., who about a year ago, moved to Kansas, leaving behind them an old dog named Dash, who had been brought up in the family from his birth. After his owners left, he grew moping and despondent. He would run down the road to meet an approaching team as though he thought he should find his old friends, and then return dejected. When spoken to he gave a mute appealing glance. His brain seemed soon to be affected, and it was deemed best to kill him to end his sorrow. The affection and constancy of animals often teach valuable lessons.

**Mrs. Lofty and I.**

Mrs. Lofty keeps a carriage,  
So do I;  
She has dapple grays to draw it,  
None have I;  
She's no prouder with her coachman  
Than am I,  
With my blue-eyed, laughing baby,  
Trundling by.  
I hide the face lest she should see  
The cherub boy and envy me.

Her fine husband has white fingers,  
Mine has not;  
He could give his bride a palace,  
Mine a cot;  
Her's comes home beneath the starlight,  
Ne'er caresses she;  
Mine comes in the purple twilight,  
Kisses me;  
And pray's that He who turns life's sands  
Will hold His loved ones in His hands.

Mrs. Lofty has her jewels,  
So have I;  
She wears hers upon her bosom,  
Inside I;  
She will leave hers at death's portal  
By and by;  
I shall bear my treasure with me  
When I die;  
For I have love and she has gold—  
She counts her wealth, mine can't be told.

She has those who love her station,  
None have I;  
But I've one true heart beside me—  
Glad am I.

I'd not change it for a kingdom,  
No, not I;  
God will weigh us in His balance  
By and by,  
And then the difference He'll define  
'Twixt Mrs. Lofty's wealth and mine.  
—Authorship claimed by several.

**Charcoal and its Uses.**

Charcoal laid flat while cold on a burn, causes the pain to abate immediately; by leaving it on for an hour the burn seems almost healed when the burn is superficial. And charcoal is valuable for many other purposes. Tainted meat, surrounded with it, is sweetened; strewn over heaps of decomposed pelts, or over dead animals, it prevents any unpleasant odor. Foul water is purified by it. It is a great disinfectant, and sweetens offensive air if placed in shallow trays around apartments. It is so very porous in its "minute interior," it absorbs and condenses gases most rapidly. One cubic inch of fresh charcoal will absorb nearly one hundred inches of gaseous ammonia. Charcoal forms an unrivaled poultice for malignant wounds and sores, often corroding away dead flesh, reducing it to one quarter in six hours. In cases of what we call proud flesh it is invaluable. It gives no disagreeable odor, corrodes no metal, hurts no texture, injures no color, is a simple and safe sweetener and disinfectant. A teaspoonful of charcoal, in half a glass of water, often relieves a sick headache; it absorbs the gasses and relieves the distended stomach pressing against the nerves, which extend from the stomach to the head. It often relieves constipation, pain, or heartburn.—[Ex.]

Some crusty, rusty, fusty, musty, dusty, gusty curmudgeon of a man gave the following toast at a celebration:—"Our fire engines—may they be like our old maids—ever ready, but never wanted!"

**CASH INSTEAD OF CREDIT.**—People who buy for cash always buy cheaper than those who buy on credit. They buy also more closely, and select more carefully. Purchases which are paid for when they are made are limited more exactly to the purchaser's wants. There is nothing like having to count the money out, when the article is bought, to make people economical. The amount of indebtedness incurred is not much considered when the pay-day is far off. Persons who do all their business on a cash basis know just where they stand and what they can afford. Real wants are few, and can be gratified for cash; at all events, they should be limited to what can be paid for in cash. How much of anxiety, how many sleepless hours, how many heartburnings, disappointments, and regrets would be avoided if this rule were always strictly adhered to.

**Make Your Home Beautiful.**

"Make your home beautiful—bring to it flowers;  
Plant them around you to bud and to bloom;  
Let them give light to your loneliest hours—  
Let them bring light to enliven your gloom;  
If you can do so, oh, make it an Eden  
Of beauty and gladness almost divine;  
T'will teach you to long for that home you are  
needing.  
The earth robed in beauty beyond this dark time."  
[Selected.]

**Valises That Look Alike.**

If the trunk manufacturers do not quit making so many thousands of valises exactly alike somebody is going to get into some awful trouble about it some time, and some trunk maker will be sued for damages enough to build a court-house.

The other day an omnibus full of passengers drove up town from the Union depot. Side by side sat a commercial traveller, named William Macaby, and Mrs. Winnie C. Dumbleton. When the omnibus reached the Barret House the commercial missionary seized his valise and started out. The lady made a grab after him and he halted.

"I beg your pardon," she said, "but you have my valise."

"You are certainly mistaken, madam," the traveller said, courteously but firmly, "this is mine."

"No, sir," the lady replied, "it is mine. I know it among a thousand. You must not take it."

But the traveler persisted, and they came very near quarreling. Presently one of the passengers pointed to a twin valise in the omnibus, and asked:

"Whose is that?"

"It isn't mine," said the traveller. "It is just like it, but this is mine."

"And it isn't mine," said the lady; "he has mine, and I'll have the law on him. It's a pity if a lady can't travel alone in this country without being robbed of her property in broad daylight."

Finally, the traveler said he would open the valise to prove his property. The lady objected at first, saying she did not want her valise opened in the presence of strangers. But as there was no other means of settling the dispute she at length consented. The traveller sprung the lock, opened the valise, and the curious crowd bent forward to see.

On the very top of everything lay a big flask, half full of whisky, a deck of cards, and one or two things nobody knows the name of.

"Madam," he said, "you are right. The valise is yours. I owe you a thousand apolo—"

But the lady had fainted, and the traveler relocked his valise with a quiet smile. Early in the afternoon a sign painter down town received a note in a feminine hand asking him to come to the Barret House to mark a leather valise in black letters a foot and a half long.—[Hawkeye.]

**Intruding on Her Majesty.**

On Wednesday evening, at Windsor, the Queen retired at 11 o'clock; we staid behind talking for half an hour. At midnight I set out to find my own apartment, and I lost myself in the galleries, saloons and corridors. At last I slowly open a door, taking it for mine, and I see a lady beginning to undress, attended by her maid. I shut the door as fast as I can, and begin again to search for my own room. I at last find some one who shows me the way. I go to bed. The next day at dinner, the queen said to me laughingly: "Do you know that you entered my room at midnight?" "How, ma'am; was it your Majesty's door that I half opened?" "Certainly." And she began laughing again, and so did I. I told her of my perplexity, which she had already guessed; and I asked whether if, like St. Simon or Sully, I should ever write my memoirs, she would allow me to mention that I had opened the Queen of England's door, in Windsor Castle, at midnight, while she was going to bed. She gave me permission and laughed heartily.—[Monsieur Guizot in Private Life.]

Never sit down and brood over trouble of any kind. If you are vexed with yourself or the world, this is no way to obtain satisfaction. Find yourself employment that will keep your mind active; and depend upon it, this will force out unwelcome thoughts.



**Commercial.**

**London Markets.**

London, Oct. 9, 1880.

Supplies liberal and promise to be very abundant during the season. There was a real sale for grain and all farmers produce.

**GRAIN.**

	Per 100 lbs		Per 100 lbs
Delhi Wheat	\$1 58 to 1 61	Peas	90 to 1 00
Treadwell	1 58 to 1 61	Oats	90 to
Clawson	1 58 to 1 60	" Old	90 to 1 10
Red	1 58 to 1 62	Corn	90 to 1 10
Spring	1 58 to 1 61	Rye	80 to 90
Barley	1 10 to 1 25		

**PRODUCE.**

Butter, crock	20 to 22	Potatoes, bag	60 to 65
do roll	20 to 24	Apples p bush	30 to 45
do keg	15 to 18	Turkeys, p bu	25 to 30
do inferior	8 to 14	Beef, per qr	3 00 to 5 00
Carrots, p bu	18 to 30	Mutton, lb	6 to 7
Onions, bush	75 to 1 00	Lamb	6 to 8
Beef, per qr	3 00 to 5 00	Wool	28 to 28
Tallow res'd	8	Dressed hogs	
" rough	4	per 100 lbs	5 00 to 5 50
Honey	20 to	Live hogs, do	3 50 to 4 00
Cordwood	4 00 to 4 00	Lard	9 to 10
Ducks	60 to 70	Geese, each	60 to
Chickens, pr	45 to	Turkeys	75 to 1 10
Cheese, per lb	13 to	Milch cows	20 00 to 40 00

**FLOUR.**

Flour, fall wht	3 00 to	Oatmeal fine	3 00 to 3 00
" mixed	2 75 to 2 7	" course	3 50
" spring	2 75 to 2 75	Cornmeal	1 75 to 1 75
Shorts, per ton	10 00	Bran, per ton	10 00

**HAY AND STRAW**

Hay, per 100 lbs. 8 00 to 9 00 | Straw, per load 2 60 to 3 00

**Montreal Market.**

Montreal, Oct. 8.

Wheat—Red winter, sold at \$1.13, superior white winter, \$1.12, Toledo red, \$1.10. Peas, 82 c. Barley, 65 to 75 c. Flour \$4.10 to \$5.25, do Ontario bags, \$2.55, city bags, delivered, \$3. Oatmeal per bbl., \$4.30 to \$4.35. Cornmeal, white, \$2.70 do yellow, \$3. Cheese per lb 12½ c., butter, creamery, 25 to 28 c., township, 21 to 23 c., Morrisville and Brockville, 20 to 22 c., western, 17 to 19 c.

CATTLE.—Prices for cattle are firmer at 4½ to 5 c. per lb live weight for fair to good shipping grades, while butcher's cattle sold at 2½ c. Hogs, prices easy at \$5.75 to \$6 per 100 lb for fair to good.

**Toronto Market.**

Toronto, Oct. 9.

Fall wheat, 93 c. to \$1.05, spring, do \$1.03 to \$1.10, barley, 51 to 71 c., peas, 65 to 66 c., oats, 50 to 51 c., corn, 55 to 57 c., flour, \$4.05 to \$4.75, bran, \$9.50 to \$10.00, hogs, \$6.50 to \$6.75, butter, 15 to 22 c., oatmeal \$3 to \$4, wool per lb 23 to 29 c.

**New York Markets.**

New York, Oct. 9.—Flour, per bushel, \$3 50 to \$4 25; wheat No. 1 white, \$1.15; red, Nov. 1, 16c.; rye, 97c to 98c; corn, 55 to 57 c.; 33½ to 33½; barley, dull and nominal; oats, 55c to 57c for mixed; pork, \$16; lard, \$8 52; butter, 16c to 18c; cheese, 9c to 18c; hogs, 6c to 7c per pound.

**Chicago Market.**

Chicago, Oct. 9.—Wheat No. 2 red winter, \$1. No. 2 Chicago spring, 97c. to 98½c.; corn, 39c. to 4 2c.; oats, 30½c.; rye, 82c. pork, \$18 to \$19.

**English Markets.**

London, Oct. 9.—Floating cargoes of wheat and corn strong; good cargoes of red winter wheat off the coast, 45s. 6d. to 46s.; do. No. 2 spring, 44s. 6d. to 45s.; mixed American corn 28s.; fair average mixed American maize for prompt shipment, 25s. to 26s.

Liverpool, Oct. 9.—Flour, 9s. 3d. to 11s. 6d.; wheat spring, 7s. 10d. to 9s. 2d.; red winter, 8s. 8d. to 9s. 1d.; white, 8s. 6d. to 9s. 6d.; club, 9s. 6d. to 10s. 1d.; corn, 5s. 6d.; oats, 6s. 2d.; barley, 5s. 8d.; peas, 7s.; pork, 18s.; lard, 44s. 6d.; bacon, 4½ to 45s.; beef 63s. 6.; tallow, 34s. 9d.; cheese, 16s.

ONTARIO FRUIT GROWERS' ASSOCIATION.—The annual meeting of this society was held at Hamilton, Sept. 21st, when the following officers were chosen for the ensuing year: Mr. C. P. Demsey, of Albany, President; Mr. Wm. Saunders, London, Vice-President. The Directors for the various divisions were also chosen.

**The Latest.**

DEAR SIR,—I thank you for the attention paid to my questions. I must say that I consider the farmers of Ontario greatly indebted to you for the exertions you have made in supplying them with the best information about their calling. Your independent course and good intentions deserve the support of all interested in the prosperity of this Dominion.

I consider that you have done more than any other individual to maintain the health of Canadian stock, and thus obtain good prices. I shall try to send you some subscribers. Every farmer, and every one interested in agriculture or horticulture, should take your very valuable journal. The paper is worth ten times its cost.  
T. ORR, Middlesex.  
Oct. 9, 1880.

**Stock Notes.**

France holds a fat stock show at Paris, Feb. 14 to 23rd, 1881.

The Hon. H. M. Cochrane was among the purchasers of Shropshire-downs at English sales.

Messrs. Lang & Thompson, of St. Mary's, will have a sale of Shorthorns on the 21st of October. See advertisement.

Mr. Rolph, of Markham, Ont., while at the Toronto fair, sold \$700 worth of Jerseys, receiving for one two year old heifer \$350.

John Carroll & Sons, of St. Catharines, Ont., will hold a stock sale on the 4th November next. Remember place and time. For further particulars see advertisement in this issue.

Mr. Richard Gibson, Ilderton, Ont., has recently gone to England, and intends to return shortly, bringing with him a number of very superior and choicely-bred Shorthorns of the Bates family.

Mr. Treadwell, who is said to be the most advanced breeder of Oxford-downs in England, has recently, at public auction, sold 50 Oxford-down rams at an average of £18 4s 6d, the first 20 averaging £28 18s.

Mr. George Whitefield, of the model stock and dairy farm, Rougemont, Province of Quebec, has recently imported from Great Britain 48 animals, consisting of Polled Angus, Highland, Ayrshire and Hereford breeds; also a few black-faced sheep.

Canadian horses at Southport Show, England.—Mr. Nutting secured first prize in the 16-hand class single roadsters in harness, with a bay mare; Mr. Bonch 3rd in the same class with a bay gelding. Both of these animals, which were much admired, have recently been imported from Canada.

There will be a sale of fine bred stock, cattle, sheep and horses, by the Huron Live Stock Association, at Clinton, Ont., Oct. 20th. Good stock and bargains. This annual sale of pure-bred stock, established for four years, deserves the attention of stockmen. It is annually growing in favor. See advertisement.

John Snell's sons, Edmonton, recently received from England 17 yearling Cotswolds, selected from some of the leading flocks of England; also a Berkshire boar, which was first in his class at the Royal show of England. They have also sold 24 head of Cotswolds and a pair of Berkshires to T. W. Samuels, of Kentucky, and 1 Berkshire boar to another Kentucky firm.

The Canada West Stock Farm Association have recently sold to A. J. Alexander, of Woodburn Farm, Spring Station, Kentucky, the six month bull calf Tuberosa 51st, by 4th Duke of Clarence (33597); dam, imported Oxford Bell 3rd. It is reported the price paid for this choicely-bred animal was \$4,000.

Read the advertisement of H. G. Charlesworth's sale of Jersey cattle, collie dogs, &c. One of our staff purchased a collie pup from Mr. H. G. Charlesworth. It is highly prized by its owner and every one that has seen it. Taking this as a specimen of his stock, we would recommend our readers to read his advertisement, and we have no doubt but some of you will be able to purchase stock worth your attention and your money, especially as Mr. C. is about to sell everything and retire from the stock business.

MULES FOR THE BRITISH SERVICE.—The Government of India has decided to test the fitness of Cyprus mules for active service in India, and a mountain battery of artillery horses by these animals has been selected for immediate active service. There may be profit in raising mules.

CATTLE DISEASES.—The cattle plague is assuming immense proportions in Portland, Erie Co. Ohio. The cows are dying in great numbers, and much fear is felt on the part of the people for their own and their children's safety. The reporter of the Enquirer visited the locality referred to and saw several loads of dead cows being hauled away.—[Cincinnati Enquirer.

**Abortion in Cows.**

A farmer says he has farmed twenty years, and his first case of abortion was in March, 1879. Now it is not probable that in consequence of grazing cows for so long a period they have taken the lime out of the land, and consequently their is a deficiency of it to make bone, and the want of which causes abortion?

There was a farm near Leeds, which for many years supplied that town with milk, where in the course of years nearly all the cows slipped their calves, and the losses became so severe that the tenant gave up the farm. The farm, which had acquired a bad character, was sometime unlet. At last it was taken by a man who believed he knew the reason why the ill success attended the last tenant; he concluded it was caused by the blood of the cows not being sufficiently rich in bone material, and his first step on entering the farm was to dress the land with dissolved bones. This proved he was right; the cows went the natural period, producing strong and healthy calves. I have kept about ten cows for more than twenty years, and never had a cow slip her calf; but then I have dressed the land two or three times with half-inch bones, besides using superphosphate of lime with nitrogenous manures.—[Agricultural Gazette (London).

**Save the Strippings.**

The last milk drawn from the cow at each milking is much the richest part of the mess. The reason is the same that the top of a pan of milk which has stood awhile is the richest part of it. The cream, being the lightest part of the milk, rises or remains at the top of the udder, while the heavier, watery portions settle at the bottom, similarly though not as perfectly as when set in a pan. The richer portion of the milk, being of greater consistency, settles to the bottom of the udder, but slowly, as the milk is drawn off. Hence, after the first flow of milk has ceased, after a lapse of a few minutes, or while the milker is drawing from the other half of the udder, a new accumulation is found in the part first drawn. This will be found nearly all cream, and when the object is butter-making this can be drawn into a small vessel by itself and strained directly into the cream-pot and thoroughly mixed with the cream. The cream from the main bulk of the milk will rise more readily and the separation be more complete for being relieved of so much of the cream in the start, and the part thus taken away will not be exposed to the deteriorating influence of the milk as it gets sour or old, and the general result will be better butter and more of it. A half-pint or so from each cow of the very last you can get is generally enough to save out.

Some people milk in such a hurry that they never get the strippings at all, and thus not only lose the best part of the milk but soon spoil the cow. Whether you keep them separate or not, be sure you have the strippings. Milk rapidly, but don't quit till you get the strippings.—[Western Rural.

Cattle in Delaware State, U. S., are being affected by the pestiferous "Texas tick," which is beginning to play sad havoc among them. The insect not only burrows in the hide of the animals, but penetrates their flesh, affecting them to such an extent that death soon ensues. Giles Lambson recently lost three fine cattle by this pest, and one of his neighbors lost five, while others are suffering in the same respect. In this connection a Delaware correspondent of the Country Gentleman says: "The ticks get on the elder bushes, and then on the cattle, poisoning the blood. The cows lie down with a heavy fever, and generally die within twelve hours. Some give them as a dose, one ounce nitre and one pound glauber salts. Others put on blue ointment to kill the ticks. Mr. Lambson lost five Sunday last; his next neighbor lost thirteen in one day; the five recovering were young heifers, and are doing well. George Grubb has twenty-eight down, and Mr. McCoy eight or nine. The ticks came from a drove of Maryland cows, which had been used in transporting cattle from Texas. The ticks will spread all over the country unless something is done by the railroad companies in cleaning the cars."

Mr. J. H. Stacey, of Drummond, Ont., has a Turkey that commenced laying on the 12th of April. Up to the first week in September she laid eighty-three eggs! Next.



**A Scene on Vancouver's Island.**

This scene which we here present to our readers, though rich in woodland beauty, can give but a faint idea of the beauty of this lovely isle, the gem of the Northern Pacific. The inland mountains of the mainland and the gentle breezes of the Pacific have the effect of moderating the temperature of the climate, so that it is milder and more enjoyable than that of New York at its pleasantest seasons. Throughout the year the choice flowers, that in less favored climes need artificial heat, grow wild in this island, and "waste their sweetness on the desert air." Vancouver's Island is, as you are aware, part of British Columbia, the most distant Province of the Dominion, from her capital and from the seat of empire, Great Britain. The Province is very mountainous, though greatly diversified by intervals of very productive land, and rivers having their sources in the highlands.

**ADDITIONAL CORRESPONDENCE.**

DEAR SIR,—If you will send me a few copies of your Exhibition No. I will be happy to distribute them to parties who do not take the *ADVOCATE*. I am surprised that so many of our intelligent farmers take no purely agricultural paper, such as yours, and I intend to do all I can this fall to help increase its circulation. I have been a reader of the *ADVOCATE* for years, and I am satisfied it is the **BEST AGRICULTURAL PAPER PUBLISHED FOR THE CANADIAN FARMERS, AND MOST DEVOTED TO THEIR INTERESTS.** I CONSIDER THAT THOSE WHO DO NOT SUPPORT SUCH A PAPER ARE **STANDING IN THEIR OWN LIGHT.** Yours very truly,

JOHN MCGURK, Colinville, Ont.  
Sept. 6th, 1880.

Brule, Colchester Co., N. S.,  
September 4th, 1880.

SIR,—I enclose you one dollar for the *ADVOCATE*. There is no dollar spent on the farm for

**A Small Couple.**

Germany can justifiably boast of having produced the smallest married couple that ever stood before an altar, in the persons of a miniature "Marquis" and "Marchioness," who have for some time past been exhibited at the Place du Theatre, at Odessa. The Marquis, a native of Kiel, is thirty years old, and weighs only 19 pounds, while his fairy-like consort, a young lady born in Meuminster some 22 years ago, just turns the scales at 13 pounds. At a first glance, this tiny pair, it is said, might be taken for a couple of scarcely weaned babies, dressed up for a joke in the garb of adults, but on a closer examination, the genuineness of their maturity becomes unmistakably apparent.

A certain flavor of romance runs through the story of the circumstances that led to their union. Although they are both German born wonders, leased by their parents to travelling showmen at an early age, they never happened to meet at the fairs and Kermessen of their native land; but a year ago the Marquis being on exhibition at Mis-



A SCENE ON VANCOUVER'S ISLAND.

Extensive tracts are well adapted to stock feeding and agriculture. The most valuable timber in the Western Hemisphere is in British Columbia. On the mainland the extent of land suitable for immediate settlement is estimated at 200,000 square miles; with the improvement of the country this acreage will be greatly enlarged. The Province is very rich in minerals—gold, silver, iron, platinum, plumbago and coal especially. The Canada Pacific Railway, which is now being built, will connect the Atlantic and Pacific oceans, the entire line being in British territory. The isle comprises nearly 20,000 square miles of good land. Its exports are, timber, fish, wool and the precious metals. Victoria is increasing greatly in wealth and population. The capital of the Province, New Westminster, is on the mainland.

which I receive so much value as in paying for the *ADVOCATE*. I received your package of seeds you sent last spring, for which accept my thanks. I threshed the Swiss oats yesterday, and had a yield at the rate of eighty-five bushels to one sown.

Yours truly, JAMES SEMPLE.

SIR,—Every person in Canada owes you a debt of gratitude, as I consider you have done more to prevent the introduction and spread of contagious diseases in our country than any other individual.

S. M. BRANT.

Aug. 25th, 1880.

Though this is said to be a year of great plenty, all places are not alike favored with abundance. A farmer in Kansas writes: "With us harvesting of fall wheat is all over; that which has been threshed gives a poor return. Corn is not doing very well. The bugs are destroying it."

cow, while Frulein Lilli was starrng at St. Petersburg, they became aware of one another's existence through reading the newspaper notices of their respective characteristics, and entered into a correspondence, which soon led to a rendezvous, and ultimately to the contraction of a matrimonial engagement. Now they take their professional rounds together, and are saving up their earnings with the object of retiring into private life in the Fatherland. Nuremburg could, doubtless, supply them with the most charming of doll's houses, eminently suited to their minute domestic requirements.—[London Telegraph.]

A little fellow, turning over the leaves of a scrapbook, came across the well-known picture of some chickens just out of their shell. He examined the picture carefully, and then, with a grave, sagacious look, slowly remarked: "They came out 'cos they were afraid of being boiled."



### The Western Fair.

This is the name of a combination of the East Middlesex Agricultural Society and the London Horticultural Society. The Exhibition was held in the city of London on the 4th of October and four following days. The prospects for its success were very gloomy. The Provincial Exhibition had compelled its being held later in the fall than usual; the great Elgin exhibition, only twenty miles distant, had just been established the previous week, and every exertion had been put forth to draw the masses, and the Governor-General had attended the exhibition.

The Directors of the Western Fair had held out no extra inducements to attend; no secret society of any kind had been induced to visit it; no balloon ascension, races, regatta, or lady riding, or any inducement whatever, except the usual agricultural exhibition, was made known; in fact, the Directors had, we think, indiscreetly refused the usual encouragement to stockmen, and had reduced the prize list to such an extent that not a single Hereford or Alderney was to be seen. The citizens had been divided—as many had wanted to make it a failure, so as to enable them to dispose of the ground. No government stock was to be seen at this exhibition. The first day being wet, and other causes, prevented some exhibitors from attending, yet to the astonishment of the President, Directors and almost every one, the fair proved beyond a doubt the most successful of any of the large exhibitions held this year, and we may add the only purely independent agricultural one. Exhibitors who had gained prizes and honors at other exhibitions flocked to this one; thus, if the stock was not quite so numerous as at the exhibitions held earlier in the season, the best stock was to be seen here; the quality of many classes was pronounced better than ever had been exhibited at this fair. In implements at this exhibition many large and extensive manufacturers that had not displayed at any of the other exhibitions, here made a magnificent display. For instance, the Joseph Hall Manufacturing Co. of Oshawa did not exhibit in Toronto or Hamilton, but here they had their steam engine driving an immense quantity of belting and shafting running threshing machines, reapers, mowers, &c. We hardly missed any thing that had been exhibited at either of the other exhibitions, namely, the Dominion, the Industrial or Provincial, but in the single instance of agricultural engines there were four or five more of the manufacturers of these, the greatest labor savers, than were to be seen at any other exhibition, namely, the Oshawa Engine, McPherson's importation from Ypsalanti, Mich., and no less than four agricultural engine manufacturers in this city alone, namely, Haggart Bros., E. Leonard & Sons, White, and Stevens, Turner & Burns. The two last named firms are loudly clamoring for trials and tests of actual work done on the farms. They did not, in fact they could not, exhibit at Toronto and act honorably with their customers, the demand has been so much in excess of their capacity to produce.

Mr. John Able carried off a diploma with his mill in Toronto, and Messrs. Waterous had one of their engines drawing a threshing machine about the grounds. The different binding harvesters were represented by the Toronto Reaper and Mower Company; Harris & Sons, Brantford; and John Elliott & Sons, London. Mr. John Watson exhibited his gleaner, or binder, an implement we must speak about when we have more space. We did not count the number of reapers and mowers, or of other implements, but the display on the whole was considered one of the best ever made in Canada.

In the Machinery Hall the display has been

larger. J. Cowan & Co. were by far the largest exhibitors here; they have so many valuable wood-working machines, that their circular would be found to suit those who desire to have the best class of machinery.

In the Main Building the largest amount of space occupied by any one firm was filled with stoves, furnaces, &c, made by Copp & Co., of Hamilton. Their exhibit eclipsed that of all other stove men combined—not only in quantity, but in style and finish. You should just examine the improvements made in these stoves; we cannot see how any further improvement can be made. The other departments of this building were as well filled with works of art, fancy and utility as they always has been, with the improvements of each year added.

The Carriage and Waggon Sheds were overcrowded; and as for the Horticultural Building, the display of fruit, more particularly of apples, was pronounced by judges, visitors, English, Irish and American, to be beyond that seen in any other exhibition they had ever visited. Roots, vegetables, &c., were very fine. The floral exhibit was not as good as usual; of course, the lateness of the time of holding the exhibition was the reason of the difference in this department.

You all know that butter and cheese would not be neglected in this locality.

We must leave the poultry department for our special correspondent; also the stock department for some remarks from "Stockman," and also "Dairyman's" report.

### Poultry at the Western Fair.

The show of poultry at this fair was first-class, and the general character of the whole was excellent. Very few inferior birds were shown, although some choice ones were sadly infested with vermin. Long before the doors were opened eager crowds were anxiously waiting an entrance, and all day the narrow passage was crowded to its fullest extent. We sincerely hope our directors will double the width of passage and add about one hundred feet in length to the same department in the new grounds for the next year. Every coop and box were full, and 50 feet more outside were taken up with exhibit coops. This branch of farm industry is steady on the increase, and surpasses many others, as is proven by the statistical report for foreign export. The directors should in future choose three judges, as two do not always agree. We do not say that this was the best show ever held in the city. Yet there were some birds which excelled anything ever yet shown here. Chief among those were the Plymouth rocks, the colored dorking, black cochin, buff, polish, white game bantams, bronze turkeys, Pekin and crested ducks. We think it would be wise to add those to the prize list that are not in. It would be the means of adding members to the society. An idea strikes not only us but many that there ought to be a class for amateurs. We see by the prize list that the successful ones are the same old breeders, with few exceptions, that have run a certain strain for years, and have become as it were experts in the show ring. Having a large number on hand to select from they are able to place in the exhibition coop a pair for the purpose, which in all probability would not get as good stock as some which were left at home. The best stock are those that are mated for breeding purposes, not for show. Beginners know this, and not only keep their birds at home but their dollars also. R. A. BROWN, Cherry Grove, Ont.

Tomatoes and Tomato canning in New Brunswick.—The Maritime Farmer informs us that a new industry has been commenced in Fredericton, N. B. Up to the present time they had imported canned fruit and vegetables from the "States," but it is now proposed to can tomatoes and all descriptions of fruit grown in the Province, as also vegetables and meat. Contracts for the tomatoes have already been made.

### What Have We to Learn from the Agricultural Exhibitions of 1880 and Previous Years?

What have we to learn from the exhibitions just closed? How many times have these instructors been before our eyes? Should these exhibitions pass without comment, as they generally have done, excepting laudation often undeserved and unmerited. Praise becomes disgusting, and strong censure is galling to some, but facts should be fearlessly published, to enable Directors and others to remedy and improve where necessary. We will give \$5 for the best essay, to be written by any one of our subscribers, on the above subject. The article to be in this office by the 15th of December; the essay to be written for the benefit of farmers.

### Accidents.

It is wonderful that so few accidents occur at the great excursions and large gatherings. In London one lady while walking among the shafting of the machinery was caught by the skirt of her dress and dragged to the ground; the shafting was fortunately close to the floor, so that it could not draw her under, or she would have been instantly killed; as it was, she was badly bruised and rendered insensible, and her dress and underclothing were torn off her, separating at the waist. In Toronto one of the rakes of a reaping machine struck a careless little boy on the head and knocked him in front of the reaper knives; the following rake would have taken the boy on to the knives had not a man close by had the presence of mind to seize him just at the instant or he would have been cut to pieces. Would it not be well to have guards or ropes to keep children and ladies from going too near machinery in motion? At the trials of speed a censurable practice is too often indulged in by drivers and riders coming too near the centre of the ring, to the peril of spectators. At one exhibition a driver was thrown from his sulky, and a great many were in danger of being killed, by the horse running away; as it was, only three were injured.

### Complaints

There always will be, and our object should be to give publicity to those that are just, and thus endeavor to prevent repetitions.

If you have carefully perused the articles in the several exhibition numbers, you may have seen some remarks deserving attention. We have for years past heard of the plans adopted by some poultry men, namely, the borrowing of birds from different farm-yards, also the borrowing of fruit, flowers and vegetables; also the exhibiting of grain not grown by the exhibitor, and carrying off the prizes. These practices are most common by those that have figured extensively in the prize lists for many years. There are complaints about favoring local exhibitors and of interested parties in one or more of the boards of directors endeavoring to put in and keep in such judges as are known to be subservient. Legal proceedings are pending a protest against the appointment or disqualification of a judge, of which we may speak in the future.

Now that the main event of the year is over, and the long evenings give ample time for reading and preparing for next year's labors, we shall feel obliged if every old subscriber will use a little exertion to obtain one new subscriber. Please speak to those whom you think the Advocate would benefit. Every additional subscriber enables us to improve the journal.



**A Grand Prospect.**

A most important fact came under our notice at the Western Fair in London. We were introduced to Lieut.-Col. Baron Fawerob de Kerbrech, 1st Chasseur of Africa, stationed at Algiers, and Captain Henry de la Chère, commanding 13th Dragoons, Paris. These gentlemen have been sent to this country by the French Government to ascertain if they can procure suitable horses, in sufficient numbers and of suitable price, to serve as cavalry and artillery horses. The French Government have tried to procure a supply from various sources; even the mustangs of South America have been tried, and found wanting. The Germans put a heavy export duty on horses as soon as the French try to purchase them. These gentlemen have been to several parts of the States, but they express themselves better satisfied with the Canadian horses, both in regard to quality and price. They did not approve of the Clydes; they objected to sorrels, and to horses with white front feet. They pointed out a dark bay colt, with black legs and tail, of fine bone, rather heavier than the racehorse, but nearly as fine, as the stamp of horses they wished to procure.

Mr. John Dyke, the Canadian Emigrant Agent from Liverpool, Eng., accompanied them. The latter named gentleman has just returned from Manitoba where he has been to examine the country. Mr. Dyke bears a very high name among Canadian shippers; they say he has done more good for Canada than any other person they have met. He has watched and guarded the interest of Canada and of Canadians, and has done much good to Canada in the cattle trade. He tries to send the right class of emigrants to Canada, and his information may be relied on. He informed us that the present regulations in England give Canadians an advantage of 1d. per lb. on our beef cattle which is equal to about £4 or \$20 per head over American cattle; this advantage is because Canadian animals are free from disease, and are allowed to be taken alive into the country. American cattle are very often found afflicted with disease, and must be slaughtered on landing.

If the French Government send to Canada for a supply of horses, increased prices will be the result. Farmers, has not the FARMER'S ADVOCATE been right in contending against the introduction or spread of contagious diseases among our farm stock?

**Maritime Provinces Exhibitions.**

We are sorry to learn that the exhibition held at Halifax was not successful. The total attendance during the four days was but 11,300, and the receipts were but \$2,660, while the expense was nearly \$7,000. The great attraction of the Provincial exhibition held at Kentville, combined with other causes, is said to have led to this result. The Provincial exhibition at Kentville, N. S., in the centre of the Annapolis Valley, was especially strong in fruits and vegetables. There were over 100 entries of apples, and there was on view nearly 700 dozen. The display of horses and cattle was very good. There was a small exhibit of manufactured goods. The agricultural articles exhibited were principally from Ontario. The total number of exhibitors was 920, and the exhibits 5,000.

Of the New Brunswick exhibition held at St. John, we have not as yet been able to learn full particulars. Of agricultural products there was a good display. The most successful display has been of horses and cattle. The entries number over 1200.

Scarcity of apples in England and abundance in Canada.—There have been this season already shipped from Montreal to England, 36,000 barrels of apples. At this time last year there were none shipped.

Charles Pratt, of London P. O., Ont., had a nice collection of drain tiles at the Western Fair. Mr. Pratt has been long established, and his tiles have given good satisfaction wherever used. Call at his works, on the base line, Westminster, and judge for yourself. As regards his workmanship, Mr. Pratt has taken 1st prizes at the Western for the past three years, and also at the Provincial, at Hamilton, this year, against strong competition. §

**NEW ADVERTISEMENTS.**

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Fair Ground, St. Catherines, Thursday, Nov. 4th, 1880.

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- 6 Thoroughbred Shorthorn Durham Bulls, from 4 to 20 months old.
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- 17 Cotswold Ram Lambs.
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In writing, please mention this Paper.

**Important Auction Sale**

On THURSDAY, Oct. 21, 1880, on Lot 34, Con. 11, East Nisourai, when two Durham heifer calves and two bull calves of first-class pedigree, belonging to Wm. Lang, Tp. Downie, and the entire stock and implements belonging to Hugh Thomson, 11 Con. East Nisourai, consisting of Durham and Grade Cattle, fifty-two Cotswold sheep (some imported and a large number direct from imported stock), all of which will be sold without reserve as the proprietor has rented his farm. For further particulars apply to LANG & THOMSON, Box 134, St. Marys, Ontario.

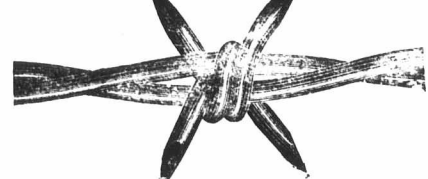
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**—SHORT'S—**



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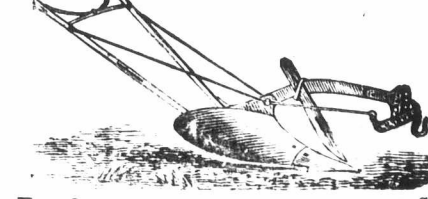
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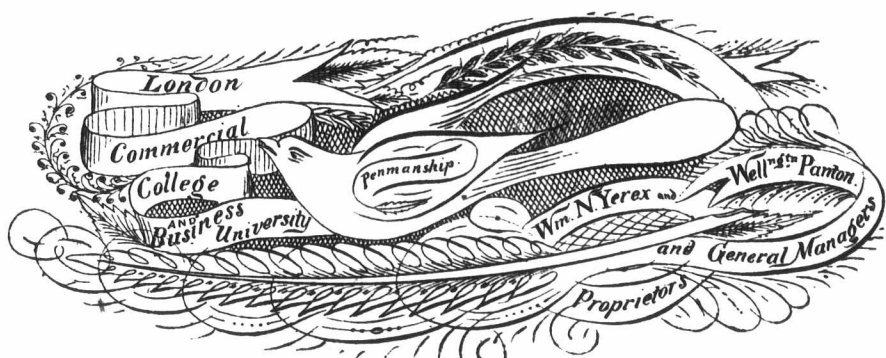
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19 The Minstrel Boy.
20 Take Back the Heart.
21 The Faded Coat of Blue.
22 My Old Kentucky Home, Good Night.
23 I'll be all Smiles To-Night, Love.
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25 Her Bright Smile Haunts Me Still.
26 Sunday Night, When the Parlor's The O'pessy's Warning.
27 The Girl I Left Behind Me.
28 Little Buttercup.
29 Carry Me Back to Old Virginia.
30 The Old Man's Drunk Again.
31 I Am Waiting, Essie, Dear.
32 Take Me Back to Home & Mother.
33 Come, Sit by My Side, Darling.
34 There's None Like a Mother.
35 You Were False, but I'll Forgive.
36 Old Log Cabin in the Lane.
37 Whisper Softly, Mother's Dying.
38 Will You Love Me When I'm Old?
39 Annie Laurie.
40 Sherman's March to the Sea.
41 Come, Birdie, Come.
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46 Oh! Dem Golden Slippers.
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49 Put My Little Shoes Away.
50 Darling Nellie Gray.
51 Little Brown Jug.
52 Ben Bolt.
53 Good-Bye, Sweetheart.
54 Sadie Ray.
55 Tim Finigan's Wake.
56 The Hat My Father Wore.
57 I've Only Been Down to the Club.
58 Kiss Me Again.
59 The Vacant Chair.
60 The Sweet Bunch South.
61 Come Home, Father.
62 Little Maggie May.
63 Molly Bawn.
64 Sally in Our Alley.
65 Poor Old Ned.
66 Man in the Moon is Looking.
67 Broken Down.
68 My Little One's Waiting for Me.
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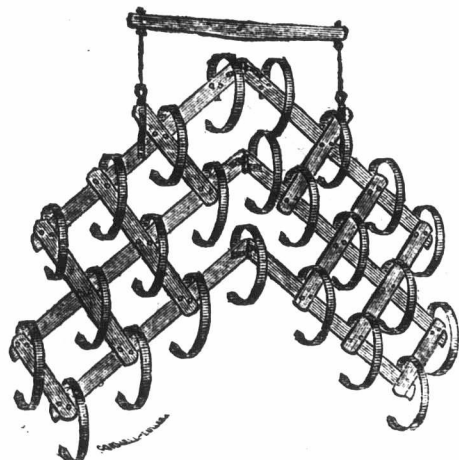
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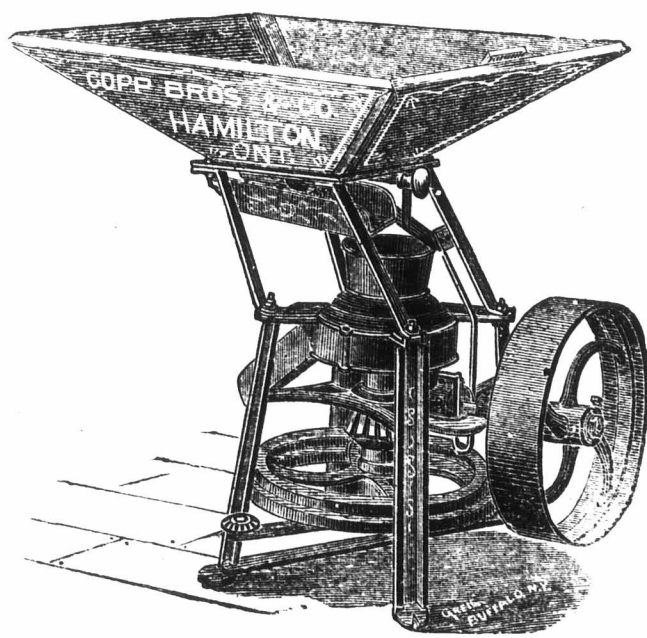
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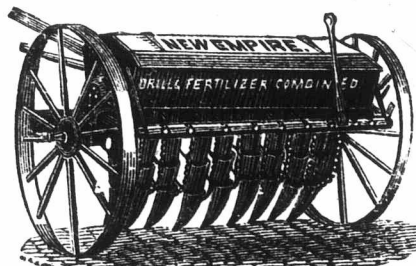
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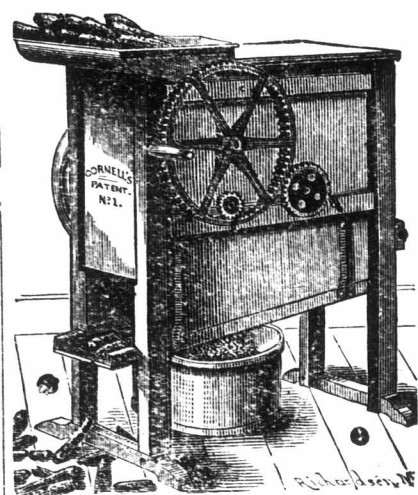
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For sale by The Canadian Agricultural Emporium, 360 Richmond Street, London, Ont., Canada.

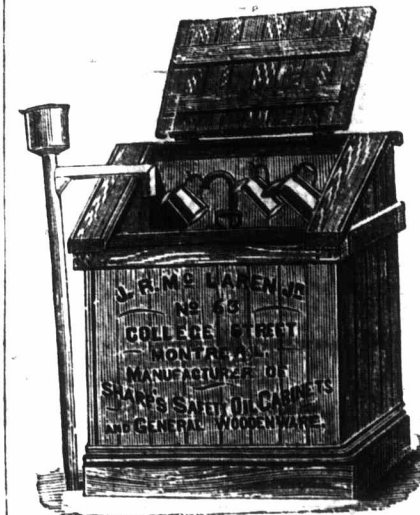
DR. W. E. WAUGH, Office—The late Dr. Anderson's, Ridout Street, London, Ont. 169-1f

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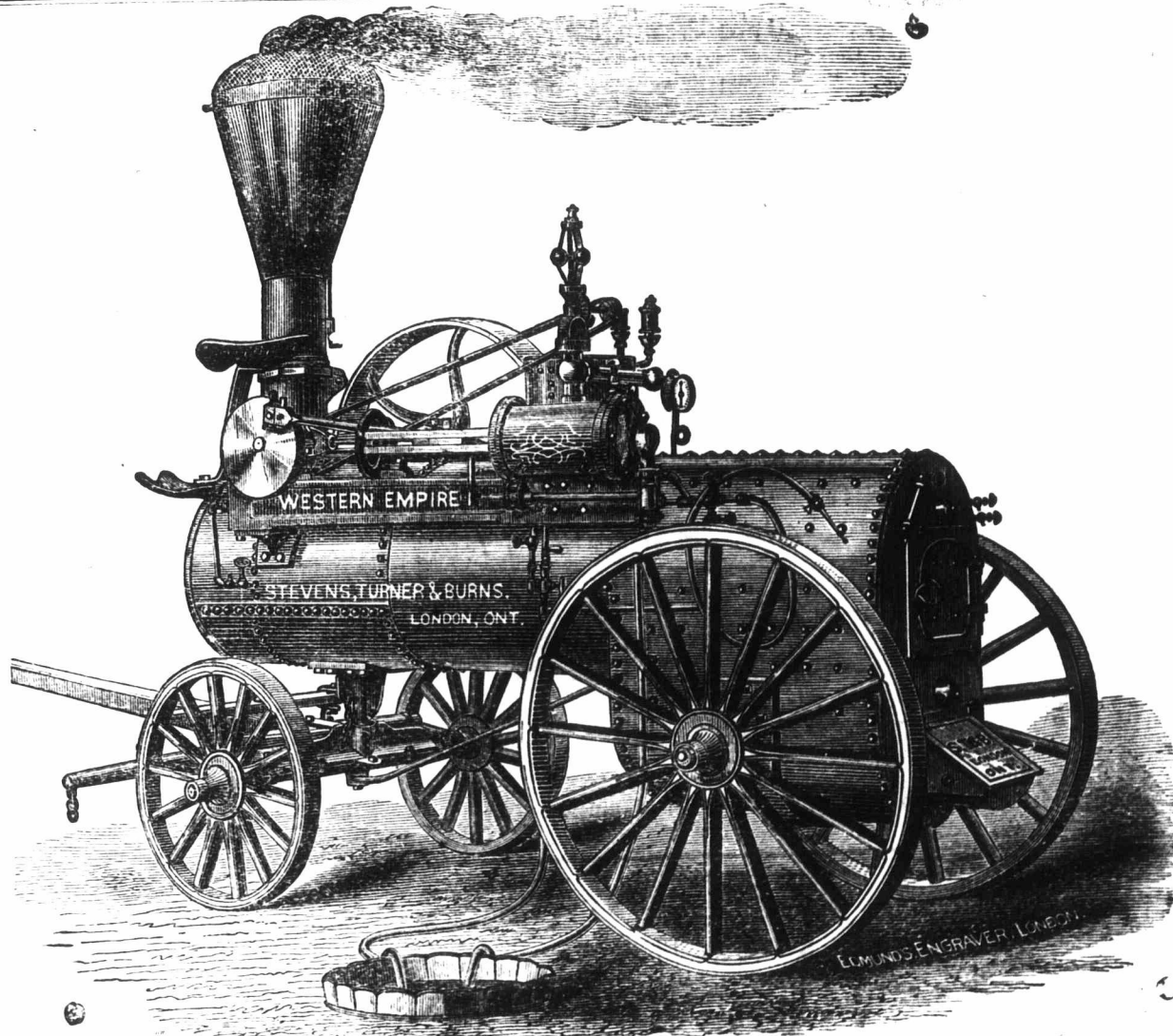
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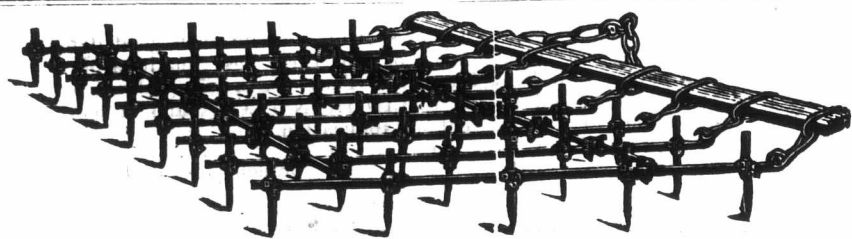




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 This Paint is not an experiment. It has been thoroughly tried, tested, and proved to be the Cheapest and Best, the finest finished and most enduring Paint ever produced. It is impervious to water! Atmospheric changes do not affect it! Send for book of testimonials, prices, or any information desired.  
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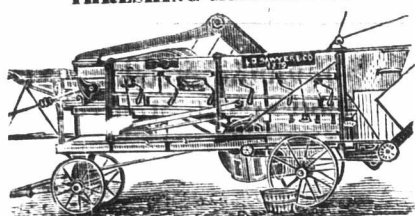


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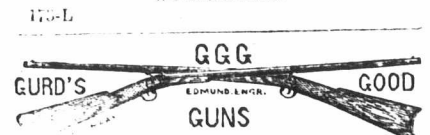
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THE STANDARD of excellence throughout the GRAIN-RAISING WORLD.  
**MATCHLESS** for Grain Saving, Time Saving, Perfect Cleaning, RAPID AND THOROUGH WORK.  
**INCOMPARABLE** in Quality of Material, Perfection of Parts, ELEGANT Finish, and BEAUTY of Model.  
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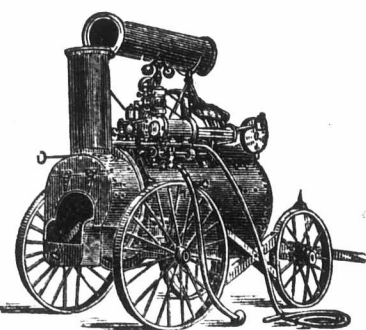
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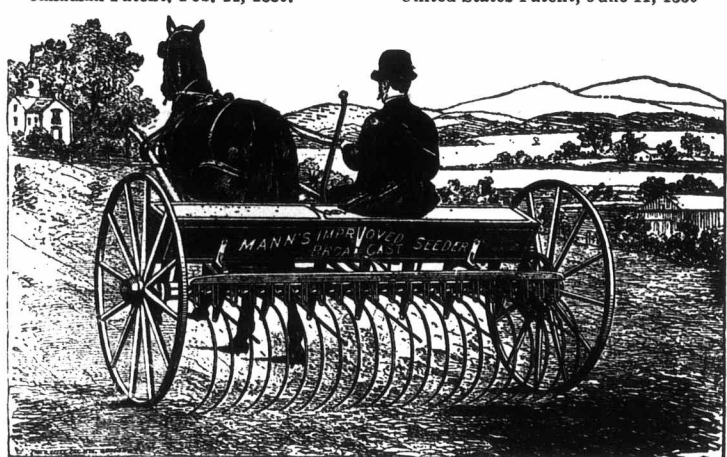
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ATTACHED TO HORSE RAKE.

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By moving a lever, which can be done in an instant, the change is made for any kind of Grain, Grass Seed or Fertilizer. It is provided with an index, that it may be accurately adjusted to sow any quantity per acre. Any boy that can drive a horse can work the machine. We, the undersigned, having bought and used the above machine, cheerfully say, after a fair trial in all kinds of sowing, that, considering the durability and simplicity, it is unequalled by any Broadcast Seeder made, and would heartily recommend the machine to the farmers.  
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Request Farmers and Threshing Machinery men visiting the various exhibitions to be held at Toronto, Hamilton, London, Brantford, St. Thomas, Brampton, Cobourg, Ottawa, Belleville, Orangeville, and other towns throughout the Province, to examine their exhibit, which includes their

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The best and most successful Reaper shown this season.

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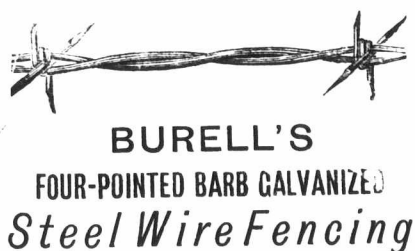
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177-c

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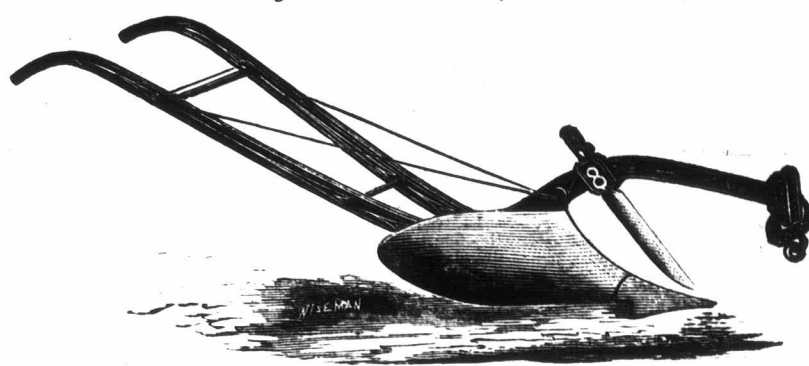
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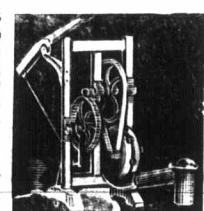
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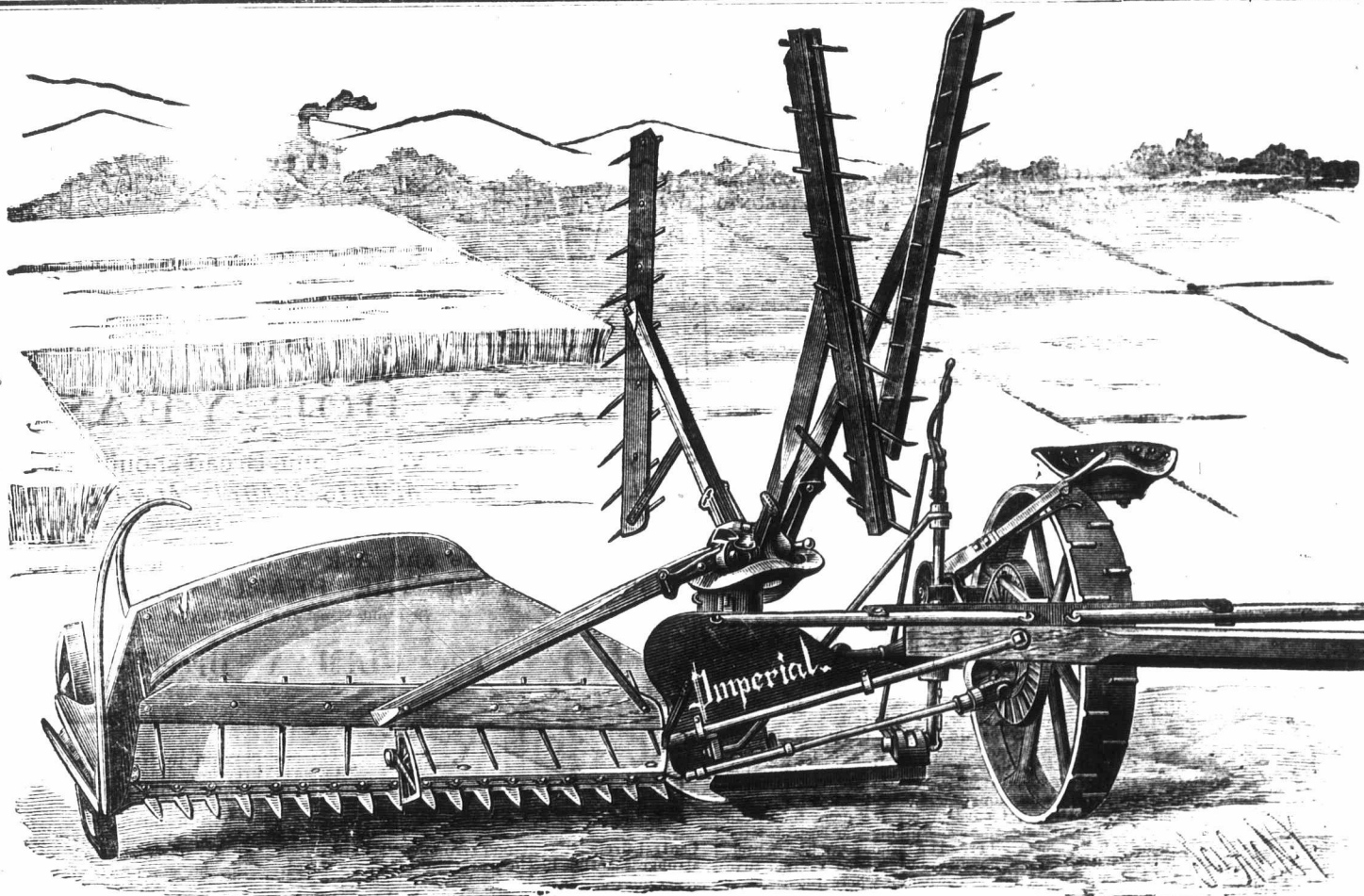
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The most useful and cheapest article of the kind ever introduced. Simple in construction and cannot get out of order. Three attachments accompany each pump. 1st—Straight nozzle which will throw water 50 feet. 2nd—Crooked nozzle, principally used for washing horses' legs, buggies, etc. 3rd (which is represented in this cut) —throws a broad and copious spray shower, and is invaluable for sprinkling fruit trees, bushes, &c., with insect-destroying solutions, the work being done thoroughly and without injury to the trees. Now that a new pest has attacked the fruit trees in Canada, special attention is called to this feature of the Excelsior Force Pump. Price, with attachments complete, only \$2. Agents wanted. Address EXCELSIOR PUMP CO., Toronto, Ont. \$25 reward for information of any infringement.

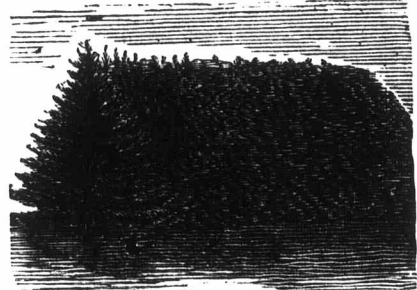
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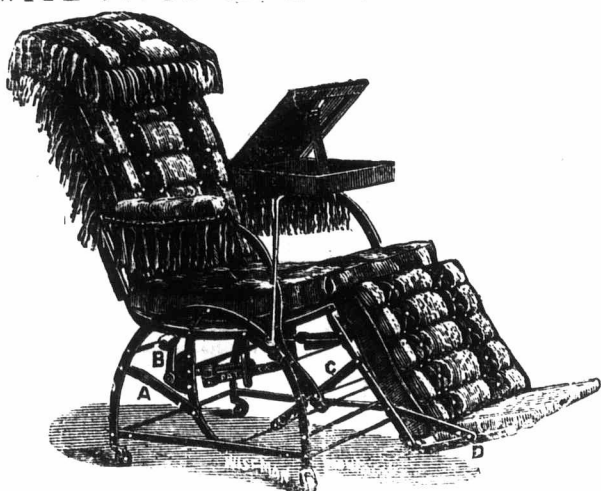
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BEST PATENT, NOV. 1877. WITH FIFTY CHANGES OF POSITION.

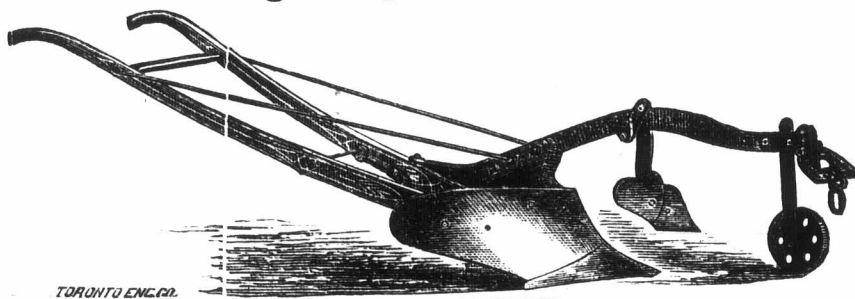


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Combining ELEGANCE, LIGHTNESS, STRENGTH, SIMPLICITY, AND COMFORT.

Also Self-propelling Invalid Chairs, combining all the comfort and changes of the Easy Chair with the addition of the self-propelling wheels. Send or Illustrated Circular. M. G. EDSON & Co, Montreal.

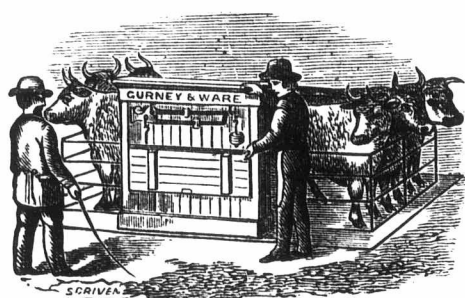
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TORONTO ENGL. AMERICAN JOINTER. PLOWS Steel. PLOWS Chilled. PLOWS Chilled Iron. To Suit all kinds of Soil.

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**HAVE TAKEN PRIZES OVER ALL COMPETITORS**

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**THOROUGHbred STOCK**

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Having other business requiring all my time, I am compelled to give up farming, and have yet to dispose of the following at less than one quarter their value:—

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1 Bull, "Middlefield Boy" (1331), A J C C H B; solid silver grey; bred by Lyman A. Mills, Middlefield, Conn. Winner of 1st prize, Toronto, 1879; medal at Ottawa; 1st prize at Industrial Exhibition, Toronto, last week, in strong competition. Price, \$100.

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2 Heifers, yearling; registered; grand pedigree; red and white. Price, \$50 each.

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1 Shearling Ram, winner of 1st at Toronto, 1st at Cobourg, 1st at Port Hope. Price, \$30.  
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All the above is choice show stock, and desiring to sell I have placed at ridiculously low prices. First come, first served. Address,

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**FOR SALE.**

60 Cotswold Rams,  
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Also Ewes of both breeds. These sheep are in good serviceable order, and are bred entirely from my own importations. Shorthorn and Hereford Bulls, also choice young Shorthorn Cows and Heifers. FREDK. WM. STONE, 178-b Guelph, Ontario Canada.

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SPECIALTIES—Brown Leghorns and Pekin Ducks.