# THE FARMER'S ADVOCATE

AND HOME MAGAZINE.

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## The Farmer's Advocate

—AND—

HOME MAGAZINE.

PUBLISHED MONTHLY BY.....WILLIAM WELD.

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Advertisements, to secure insertion and required space, should be in by 20th of each month.

☞ Letters enclosing remittances, &c., only acknowledged when specially requested. Our correspondence is very heavy and must be abridged as much as possible.


This issue has been delayed to give you more complete accounts of the Exhibitions, and to give you the Provincial Prize List to bind with this volume.

## Exhibition of the Royal Agricultural Society of England.

This Society holds its Exhibitions at different places each year. This year it was held at Bristol from Tuesday, the 9th of August, till Monday, the 15th, both days included. We do not see much advantage in continuing it till Monday of the second week, as it adds much to the expense of exhibitors. We think our plan of completing it in one week is preferable to the English plan.

In England the admission on the two first days is 5s., or $1.25, for each person; on the third and fourth days it is 2s. 6d., or 62 cents, and on the two last days it is 1s., or 25 cents. Perhaps the plan of having one 50-cent day would be of advantage here, as many who have attended our exhibitions during the rush have found great inconvenience, and many ladies and gentlemen would rather pay double the price to have more accommodation. A large stand for seats is erected near the stock ring, and a charge of 1s. is made for seats. This plan might be advantageously adopted at our exhibitions. The crowding around the ring here is laborious and unsatisfactory; a great improvement might be profitably made.

The exhibition of stock, particularly of Shorthorns and Herefords, was an exhibition worth seeing alone, but the numerous other breeds added greatly to the attraction. The Longhorns, Devons, Sussex, Welsh cattle—thrifty black animals—the dun-colored delicate Jerseys, and the small, compact, beautifully marked Guernseys were all in their turn admired. To our astonishment, we did not see an Ayrshire beast on the ground; no prizes are awarded to that class. We thought this an omission, but on enquiry we were informed that none in England took sufficient interest in that class to render a prize list for them necessary.

Every animal appeared to have its attendant. They are brought out on call in much better order than with us. Each class of horses was better represented than at our exhibitions; still our show ring of horses would find plenty of admirers, and would even astonish some in England. In sheep the exhibit was very good. One class drew our attention more particularly; they were the Oxford Downs. These are large sheep, much larger than the South Downs, having wool very much resembling that of the South Downs—close, thick, even and fine. Many of these animals were perfect models. The advantages claimed for this breed are that they are good milkers, yielding early lambs, excellent mutton and a good fleece. The mutton from these sheep ranks next to that of the South Down. What we want now in Canada is to improve the quality of our meat. Cotswolds, Lincolns and Leicesters of the present date yield mutton of a coarse quality, and the Merino mutton is worse. The flavor of an English mutton-chop is very different from that of our mutton. We can improve ours, and we think the proper sheep to do it with will be the Oxford Downs.

We felt a strong desire to bring some of this class of sheep with us, but on enquiry at Liverpool what the cost would be per head to New York, as we intended returning that way, having purchased a return ticket in Canada, found the price was £4 per head from Liverpool to New York. This we thought too much, as we had been informed that our Canadian steamers carried sheep from Canada to Liverpool for about $2 per head, and there is always more freight going to Liverpool than returning. Thus $20 per head appeared too much, besides the trouble of passing through the States.

There were no Canadians at the Royal Exhibition purchasing any stock that we could find. A Mr. Hewer purchased a few Berkshire swine, but they were for the United States. Some Australians were buying, or trying to buy, some Shorthorns. The prevailing dull times and uncertainty of monetary affairs in the States, and disturbing elections, strikes, &c., here, have kept American and Canadian stock purchasers from the Royal this year.

We passed the pig pens, but found that none of the breeders of whom we inquired knew anything about the improved Berks breed. They exhibit them there, but call them Berkshire hogs.

The exhibit of agricultural steam engines was enormous. We presume there must have been between two hundred and three hundred on the ground. We were more interested in a grain-weeding machine than in any other new implement. This machine is made to pass through fields of grain just before the grain shoots into head, and will pull up or break off the heads of all rubbish larger than the width of a blade of wheat. It is drawn by one horse, and a series of close-set iron or steel teeth revolve, combing the rubbish out of the grain. Our impression was that this machine might take out cockle, thistles and other nuisances from the grain. Most of the agricultural implements were much more roughly finished than they are with us. They appeared very strong, heavy and durable.

The farmers do not exhibit grain, as they do in this country. The seedsmen exhibited lots of seeds of all kinds. There were no floral, fruit, vegetable or art displays as with us. They have separate exhibitions for different purposes in England. The Prince of Wales visited the Exhibition. The Exhibition grounds are situated nearly three miles from the Main R. R. Station, and every available space from the station to the grounds was covered with platforms for seats or stands. The best seats were let for one guinea, equal to $5; the second best, half a guinea, 10s. 6d., a little over $2.50. Standing space was from 2s. 6d., or 62 cts., to $1.25, and the platforms were all filled; £1 was about as readily paid for a seat as 50 cts. would be with us, and this in England, merely to sit on the fence and see the Prince pass by! Loyalty, respect and love for our Queen know no bounds in England, and we will re-echo the feeling when her son-in-law and the Princess come amongst us.

## Fall Rye.

Rye is said to be a most impoverishing crop, exhausting the land of the very best plant food it can give and leaving it permanently barren. We do not think rye is deserving of so hard a character. It is generally sown on land that is not fertile enough for the production of wheat or other cereals, and it must have food; the land having very little plant food is easily exhausted of that little. Where rye has been grown on land of average fertility it has not left it more exhausted than would a crop of wheat. Rye has this advantage—it will give a tolerable crop on land that would not be worth cultivating for wheat. We have seen fair crops of rye on cold, hungry upland soils, and also on moory land that might produce wheat straw, but not wheat. Another point in favor of rye as a fall crop is its great hardiness. It is not apt to be winter-killed. It is indigenous to the cold north. When we may reasonably expect a good wheat crop let wheat be sown, but if the soil or its preparation be otherwise, we would prefer sowing a plot of rye than of wheat, even for the grain.

Rye as a forage crop is not sufficiently appreciated. For soiling it is invaluable, as there is no other plant hardy enough to maintain its growth during our Canadian winters that will give so heavy an early cutting for soiling. September is the best month to sow it for that purpose, but October is none too late. Sown even in the latter month in a favorable situation, it will yield a large

quantity of green forage for cutting in the middle of May. Those who are not in the habit of soiling their stock would find it to their advantage to sow a plot of rye to help out their pastures.

Rye is often sown also at this season for early pasture. Either as pasture or soiling it may be plowed in time for turnips or mangolds, and by this means the land may yield three profitable crops in two years. Gardeners have been long conversant with the profits to be derived from such stolen crops.

## The Provincial Exhibition of 1878.

The citizens of Toronto have acted nobly in furnishing suitable buildings for the Exhibition this year. They have erected the best buildings for the purpose to be found in this Dominion. The Main Building is a handsome one, high, spacious, neat and airy. The Horticultural Hall and Machinery Hall are both good and handsome buildings, but rather too small.

The exhibitors filled all the available space in these buildings to overflowing. The exhibit was very good in the Fruit Department, and in the Art Gallery we thought the display superior to that made at any previous Provincial Exhibition.

The Agricultural Building for dairy products was not as well filled as it might have been. The display of vegetables was good. In grain the display was but medium. The exhibit of stock and implements was very good.

The weather was most favorable, the attendance large and the crowd very orderly. Lord Dufferin opened the Exhibition with an appropriate speech. He remained there throughout the Exhibition and passed through the different departments, examining the different products, unattended by officials. The attendance was large each day. The Provincial Exhibition is to be held in Ottawa next year.

### NEW MACHINERY.

A novel plow was shown by Messrs. Thompson & Williams, Stratford, Ont.,—a large circular steel plate in the form of a disk. It revolves and turns the furrow. It appears as if it may do its work, but whether it will displace the use of the old plow or not remains yet to be seen. A new and very cheap hay tedder was also exhibited. We should judge that it could be constructed at one-third the price of the old tedder. John Abel, of Woodbridge, Ont., exhibited an attachment to his thresher, by which the hulls of the barley are removed.

McMurray & Fuller, of Toronto, Ont., made an enormous display of woodenware. One would judge they could supply this Dominion.

### COMPLAINTS THAT SHOULD BE REGARDED.

Complaints are made of the disposal of goods in the main building. They were badly mixed, making it difficult for the visitors or judges to find articles. The space for visitors is altogether too small, the passage-ways at places far too narrow, and the crowd was allowed to enter at every point, making it dangerous to be in the building. When such large crowds are expected in such small spaces, they should be kept moving in one direction. There was scarcely a seat to be found on the ground. Planks are cheap and they would not be damaged. The poultry shed was kept closed till late on Wednesday to accommodate judges only. They should be made do their work on Tuesday, or before 11 o'clock on any other day. Complaints are made of the sudden alteration in the prize list. Due notice should have been given to the public that changes would be made in time to let all prepare for such. The regulation regarding the shearing of sheep should be either expunged or enforced. As it now stands it gives general dissatisfaction; neither judges, exhibitors nor the public are satisfied.

A great attempt has been made to fix the Provincial Exhibition permanently in Toronto, but the sense of the farmers is against such a proceeding.

## The Western Fair.

This exhibition was held in the City of London on the week following the Provincial Exhibition in Toronto. The weather was favorable and the attendance of visitors was good. The implement manufacturers made an excellent display. The exhibit in stock was not as large as usual. The Directors have, we think injudiciously, reduced the amount of prize money offered for stock. The deficiency was more particularly noticeable in the Hereford and Galway classes, neither of which were represented. In the Ayrshire class the prize list has been too much reduced. The Shorthorns were exhibited in larger numbers, but not as many of them as have been shown on former occasions. The animals exhibited were excellent. Many of them would have compared favorably with those exhibited at the Royal Exhibition in England, and we think might have had a good chance to bring home some of the English honors. The display of sheep and swine was good.

The exhibit of grain was not equal to that of former seasons. Samples were not as good.

In fruits, vegetables and flowers the exhibit was not near as large as at Toronto, and the display in the main building, although good, was not to be compared to that made at Toronto. The large amount of money offered for prizes by the Provincial always tends to draw exhibitors, who exhibit for the prize money alone.

In the art department the display was meagre, and many pictures that carried off prizes were scarcely deserving a frame. There were a few paintings worthy of commendation, but some should be condemned as unworthy of a prize, or even of space near good work. The pictures displayed in Toronto were well worth the payment of an extra admission fee to see. The Toronto artists would exhibit in London if a suitable space were allowed them for such a purpose. To display a good picture in an unsuitable light does injury to an artist. London should aim to induce artists from other cities to compete.

There were great complaints about the appointment of judges in some departments. One judge in the fruit department had given such offence previously that some exhibitors objected this year, and declare they will not show again. Some exhibitors of Ayrshires complain that some judges in that department knew nothing about this class of cattle. In many instances the names of exhibitors were attached to exhibits. This is strongly objected to by many who claim to ask a fair field and no favors.

Every person prefers the Exhibition grounds at London; they are always in good order. It gave us pleasure to see that the ladies were accommodated with seats—one long one in the shade of the agricultural building, which we noticed was covered with ladies every afternoon. This accommodation might be increased.

## Guelph and Hamilton Exhibitions.

The Guelph Exhibition was well attended by stock exhibitors, and was equal in that respect to the London Exhibition; but the attendance of visitors was very small. The elections coming on the same week may have detracted from the attention to that exhibition.

The Hamilton Exhibition taking place the same week as the London Exhibition tended to weaken both. The attendance of visitors was small.

Exhibitors generally consider that there are far too many exhibitions. They cannot attend to them all, and in fact some are contemplating cessation from exhibiting, the expense attending them being so great when followed for weeks together, as they now are.

## Facts Deserving Attention.

We have often heard it remarked that manufacturers and stockmen would rather exhibit at the Western Fair in London than at the Provincial Exhibition if held at any other place. To satisfy ourselves on this question, on Friday morning (the closing day of the Western Fair) we inquired of the leading exhibitors who had attended both the Provincial and Western Fairs, and asked the following question: At which place have you effected most sales, or where do you find the best prospect for business, in London or Toronto? The following are the replies from the principals of the several firms or their foremen:

Bell Brothers, of St. George, said their business and prospects were three times as good at London as at Toronto. Green Brothers, of Waterford—business and prospects were both much better in London. Toronto Reaper & Mower Co.—sales and prospects much better in Toronto. Haggart Bros., of Brampton and St. Thomas, considered they were about equal. Massey, of Newcastle, said the prospects were much better in London, for more real farmers came to inquire and examine machines in that city. Harris & Sons, of Brantford—London was a better place for them than Toronto. Noxon, of Ingersoll—much better in London. John Abell, Woodbridge—about equal. McPherson, Glasgow, said business was hardly as good in London; prospects much better. Sawyer, of Hamilton—better in London. Watson, of Ayr—sales have been 100 per cent. better in London than in Toronto. Waterous & Co., Brantford—London Exhibition is the best. Thompson & Williams, of Stratford—business done and future prospects are both much the best in London. J. Snell & Sons said there was a better demand for Cotswolds in Toronto, and a better demand for Leicesters in London; in Shorthorns the prospects were about the same. Mr. Thompson, of Bright P. O., was the largest exhibitor of Ayrshires at London; he made two sales, but sold nothing in Toronto.

The testimony of all the London manufacturers would show much stronger in favor of London as an agricultural centre, but we do not give their opinions. These facts should be borne in mind.

There has been less done to make the Western Fair a success this year than for many years. The prize list for stock had been so much pared down that many breeders became disgusted and would show nothing, while everything was done in favor of Toronto—new grounds, new buildings, and the attendance of our much-respected representative of our Queen, Lord Dufferin, who favored the Toronto Exhibition with his presence three days. If such attractions had been made in London, the probability is that the attendance would have been nearly doubled.

## Tree Planting on Barren Lands.

Somewhat has been done in Ontario in the draining of marshes, and the consequent improvement of waste lands, but as yet it is but the beginning of a good work. Very much remains to be done at a future period. Especially is this the case in the western part of the peninsula. The reclamation of waste lands has long claimed the attention of the nations of Europe, and even in the New World whose sparser population rendered an equally large proportionate area of arable land unnecessary, the

people are planning works of a similar character, and in places on the Atlantic and Pacific some successful works have been accomplished At a recent meeting of the National Agricultural Congress at New Haven an interesting paper on this subject was read by B. G. Northop, from which we deduce some valuable suggestions.

He directs attention to the reclamation of waste lands by drainage in Europe, where it has been carried on for so long a time, and with such grand results as only need being briefly mentioned.

England, Ireland and Holland, to name no other countries of Europe, contain millions of acres of such land, now reclaimed and exceedingly fertile. Even lakes from ten to fifteen miles in length have been drained. In 1848 was completed the draining of Lake Haarlem in Holland. The lands thus recovered have since been sold by the Government for nearly $3,500,000, or about $80 per acre. The success of this grand experiment has promoted others, like the draining of the Zuid Plas—a lake covering nearly 12,000 acres, and the great work now progressing to drain an arm of the Scheld, which will recover some 35,000 acres. Encouraged by the results of these enterprises, the Netherlandish engineers now advocate the stupendous project of draining the great salt water basin of the Zuiderzee, an inland sea which covers 1,300,000 acres. The Italians have nearly completed the work of enlarging and deepening the tunnel cut by the Emperor Claudius to drain Lake Celano. This tunnel, more than four miles in length, and costing over six millions of dollars, will recover for agricultural occupation 42,000 acres of most fertile land.

Such extensive works as those are not needed here. There are in the Dominion tens of thousands of acres of fertile land ready for the labor of the husbandman; but there are also large tracts of land that may be profitably reclaimed by drainage —much of it easily accessible by railroad and highway—marshes and swamps that may be economically reclaimed and rendered very valuable. The success of such undertakings in Europe should be a stimulus to us. When the works now in progress in Hungary are completed that country will have over a million of acres of swamp land reclaimed from marsh and moor. So it is also in Italy, and similar works are carried on in England and France.

Were there similar exertions put forth in Canada her young men would find employment in the work of improvement, and the improved value of the land would repay, with a large profit, all the expenses incurred.

The sand barrens of the coasts are especially referred to by the writer, and the feasibility of reclaiming barren wastes, making good his opinion by facts. Of the drifting sands of Europe, which cover 7,000,000 acres, Marsh, as quoted by B. G. N., says:

"There is no question that most of this waste is capable of reclamation by simple tree-planting, and no mode of physical improvement is better worth the attention of civilized governments than this. There are often serious objections to extensive forest planting on soils capable of being otherwise made productive, but they do not apply to sand wastes, which, until they are covered by woods, are not only a useless incumbrance, but a source of serious danger to all human improvements in the neighborhood of them."

After an extended account of the manner of reclaiming the sand dunes in Europe, by government appropriation, and similar enterprises in this country, with some remarks on the necessity of adapting the method in any particular case to the nature of the soil and other local conditions, the writer said: As this scheme of recuperating sand wastes is regarded as chimerical by many who have not investigated the subject, I will cite facts found near at home. The amount of land planted with trees in Barnstable County is estimated at about 10,000 acres. Before the trees were planted these well-nigh worthless lands could be purchased at from twenty-five to fifty cents per acre. John Doane, of Orleans, has planted 170 acres. He has sold planted lands for $14 per acre, not worth over fifty cents before planting. John Kenrick, of South Orleans, says: "My experiments in tree-planting have been made on over a hundred acres now covered with trees from one to thirty-five years old, chiefly pitch pine. I am now trying Scotch and Corsican pine and European larch. My first aim has been to cover my worn-out lands with beauty and verdure, and it has proved a successful and economic experiment. The seed of the pitch pine is worth from one to two dollars a pound, the higher prices being in the end the cheapest. Fresh seeds carefully gathered are as sure to vegetate as corn, but obtained from seedsmen they are very unreliable in germinating. European nurserymen take far greater pains in gathering forest tree seeds, and understand the art of curing them better than Americans. I have tried every method of tree-planting, transplanting trees from the smallest to those that are two feet high. This is a costly plan, but may be adopted when one wishes to save time or desires a few trees as a wind-break or otherwise. In transplanting trees immediately from my own nursery to the fields, my favorite time is just as the buds begin to start in the spring. I have planted seeds both with a planter and by hand. On our light sands a man and a boy will plant three acres in a day; dropping six seeds in a hill, it will take about one-half a pound of seed to the acre. This is my favorite method, and is more satisfactory in results, though more costly than that of using the plow and planter. When the evergreens are two feet high I would thin them, leaving one thrifty plant in each hill. I do not trim till they get large, and then cut off only the dead branches."

The best time for planting the pine seeds is as early in the spring as the frost permits. The work is done by hand or by a seed-planter, and in rows about as thick as corn is ordinarily planted. On the Cape Cod barrens there was no vegetation except a little moss, low poverty grass, so-called, and in some cases light beach grass. Experiments are now in progress to fix the dunes or sand hills which threaten the Suez canal, by planting the maritime pine and other trees. Last summer I visited the celebrated forest of Fontainbleau, in France, which covers an area of sixty-four square miles. The soil of this wide tract is composed entirely of sand, and apparently as dry as the sand plains of Wallingford, Conn. Jules Clare, a student of forest science of world wide fame, says: "The sand here forms ninety-eight per cent. of the earth, and it is almost without water; it would be a drifting desert but for the trees growing and artificially propagated upon it."

## Improvement in Machinery.

We were recently at the Joseph Hall Agricultural works, Oshawa. Here we find the spirit of progress most strikingly manifest. They aim to keep ahead of all implement manufacturers in the Dominion, but sometimes they find that a difficult task. We think in the "Champion" reaper there is a new feature, far in advance of anything we have yet witnessed, although we have recently been to the Royal Exhibition and to Paris. In place of using cast iron in the frames and shafts of the "Champion," solid steel is used, and the bearings of the latest machines are of brass. We think there is ten times more brass and steel used on the machines we saw in course of construction than on any we have yet seen. This must add to the strength, lightness and durability of these machines. We also noticed a new horse-power. It is much lighter than the old Pitt's power, and is said to reduce the power required to run it to over the power of one horse and nearly the power of two. Farmers that have old Pitt's powers examine the new power, and if you are satisfied sell your old horse-power to some one that does not take the ADVOCATE, and purchase the best. This company has already shipped near two hundred threshing machines this autumn already. The timber and other material used by this firm is unsurpassed in quality. Their clover thresher appears to be destined to take the lead and surpass some that have had a great noise made about them. Just examine their goods at the Exhibition.

## A Large Canadian Enterprise.

The Waterous Engine Works Company, of Brantford, has sent us the following astonishing results of their last year's business:—

The sale of "Fire Proof Champions" was **85**—more than five times as many as all others put together in any single year—evidencing the appreciation of its FIRE PROOF QUALITIES by both farmers and threshers.

In Germany, where it was tested lately, it elicited much admiration; and Mr. C. H. Waterous jr., is now in the vicinity of Vienna, Austria, testing it there on a 40-cylinder threshing machine of English make, and experienced men predict a large sale of this engine there, in preference to the heavy, cumbersome, screen spark-arresting English engine.

Besides building engines at the rate of four per week, they are manufacturing portable saw-mills and grist-mills with wonderful despatch, to keep pace with their vast trade in this line, which embraces the whole of Canada, including Manitoba and British Columbia. They have also shipped seven saw-mills to foreign countries.

They are adding valuable improvements to their Champion Engine, enlarging their works, and purpose building 200 engines for 1879.

## Weather Predictions.

VENNOR'S IMPRESSIONS FOR THE AUTUMN AND WINTER.

Ottawa, Sept. 27.—Vennor, the weather prophet, writes to the *Citizen* as follows:—It is my impression that there will be a pretty general snow fall early in the month of October. That following this there will be a brief but well marked Indian summer, which will again be followed by a prolonged wet spell. Unless I am greatly mistaken, the setting in of winter of 1878-79 will be as marked for its unusual earliness as was that of 1877-78 for its extreme lateness. Navigation will close early, and will not open until late, so that the winter will be a long one. There will in all probability be an abundance of snow during the fore and latter part of the season, but, juding from the number and severity of our thunder storms this summer, I look for a warm and singularly open term towards midwinter. The woods are already full of our winter birds. Snow fell in Ottawa County to-day. North of the Hull Mountains the atmosphere has been extremely cold for several days past.

NOTE.—It will be well for our readers to have their work well forward and be prepared for the worst.

## Phosphor-bronze.

The following brief notice from an English paper on this very valuable English alloy is of peculiar interest to mechanics and manufacturers. We hope it will be shortly introduced into the Dominion and used in our agricultural implements as well as in other works.

There is a very fine set of examples of that most valuable of modern alloys — phosphor-bronze. If the ancients had known what an enormous improvement in their bronze was to be effected by the simple process of adding a little phosphorus to the copper and tin, the bronze age would have lasted many centuries longer than it did. No metal or alloy capable of being put to ordinary uses yet known presents such capabilities as phospho-bronze. It is, in effect, almost indestructible. Among the exhibits is a bronze plunger which had been in constant work for 572 days, sixty strokes a minute under a pressure of three tons, and which shows no signs of wear whatever, while hardened steel plungers only lasted two months. And so there is a phospor-bronze worm hardly worn after 18 months' use, while a brass worm, after 12 days' work, is all but worn out. The adaptability of the material to the widest variety of uses is shown by it application in the manufacture of chisels, revolvers, stirrups, wire, hammers, &c., whilst its art capabilities are admirably illustrated in a couple of busts, one in the rough and the other polished. One of the great uses of the phosphor-bronze is for bearings; but, indeed, wherever constant resistance to friction is required it is of the highest utility, while, in additian to all its other good qualities, it possesses the merit of lightness.

# Agriculture.

## The Wheat Crop.

The price of all commodities is and must be regulated by the unalterable law of supply and demand, and to this there is no exception in favor of breadstuffs. When the supply fully equals the demand the producer cannot expect very high prices. The demand for breadstuffs and the quantity available to meet this demand is therefore one of great importance to the farmer.

In Great Britain, the great market for our agricultural produce, there has been an increase in 1878 of the area under wheat, making the total area under wheat 3,400,000 acres. The yield is fully an average—about 30 bushels to the acre. We set down the aggregate, after deducting for casualties, 100,000,000, and there will be required not less than 100,000 bushels of imported wheat. From France we do not expect a demand. She will about supply from her own resources the demands of her people. Other estimates are that she may need breadstuffs more than the produce of the country—perhaps 40,000,000 bushels.

We learn from a U. S. department of agriculture and from the agricultural press that there will be for export from the United States upwards of 200,000,000 bushels, so that the supply of 1878 is much more than sufficient to meet all the demands that will be for American breadstuffs. The area of wheat in the United States was unprecedentedly large—greater by 17 per cent. in 1878 than in 1877, winter wheat having increased 12 per cent. and spring wheat 23 per cent., the area under wheat being computed at 31,000,000 of acres. It is estimated the average yield will be about $13\frac{1}{10}$ per cent., making the aggregate of 430,900,000 bushels. Deducting from this aggregate 220,000,000, the estimated requirements for home consumption and seed, there will remain for export upwards of 200,000,000.

Of the wheat crop in England the *Agricultural Gazette* says: "The agricultural returns show that the acreage of wheat is over 17 per cent. more than last year, while as to the yield, although there will not be the grand crop at one time anticipated, owing to deficiencies in the filling of the ears, it will no doubt prove an average one of 30 bushels tothe acre, calculated to yield 12,000,000 quarters, or $2\frac{1}{2}$ millions more than the crop of last year."

From the statistics given farmers may see that the prospect is not one of high prices. However, the good yield of fall wheat will more than compensate for the lower prices.

## Fultz Wheat.

The Fultz wheat is the best variety now in the market, and if properly farmed will yield on an average epual to any wheat in the country. Many farmers claim 40 bushels per acre this season. It has a stiff straw, and does not lose any grain in handling, and when it is cut will lie compact and take up less barn room than any other variety of wheat. It will weigh 64 lbs. per bushel if clean; it always sells readily for the highest price, and the flour manutactured from it has no superior. The farmers have it in their power to have the best wheat in the country, and always find a ready sale; and why will they persist in spreading a worthless variety that will not benefit them in the least. Farmers, take warning. — *American Miller.*

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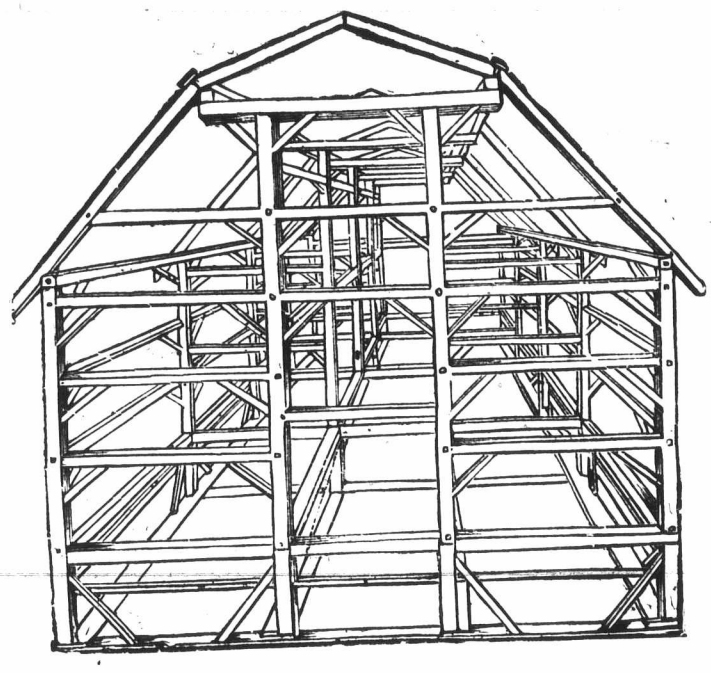
A correspondent writes to the Germantown *Telegraph* from East Tennessee:—"The most peculiar and the strangest of all seasons' accidents happened to our wheat crop this year. The varieties most successfully raised here were the most badly damaged by fly and rust, while the Clawson and Fultz—so liable to rust in this climate—escaped almost entirely both the rust and fly. The Fultz in some localities, and in the same field, made as high as thirty-two bushels per acre, while the white native wheat made but four to six bushels. The same field and the same lay of land, the same seed and the same cultivation, time of sowing and treatment, presented irregularities before unknown and unheard of."

The wheat returns of Australia for the year 1877, as compiled by the registrar-general, show that there has been an increase of 3,514 acres in the quantity of land sown with wheat during the year. The area reaped of grain shows an increase of 2,220 acres as compared with that of the year 1876; but the yield of grain has fallen short of that of the previous year by 7,870 bushels. The decrease is attributed chiefly to the severe drought which was experienced throughout the country during several months of the year, causing in some instances a total failure of the crop. The yield of grain unaffected by rust in 1877 was only 12 bushels $40\frac{1}{8}$ pounds per acre, as against 20 bushels 28 pounds in 1876. The average yield of wheat grain free from rust in the eight years from 1870 to 1877 inclusive, is a little under 20 bushels to the acre.

It is with pleasure I enclose my subscription for the year, as I think your paper just the thing for the farmers of the Dominion.

T. H. BARRET, Port Royal.



## An Improved Barn and Stabling.

SIR,—In the August number of the FARMER'S ADVOCATE you give an account of "Barns without Beams," but believing the plan of the following is far superior to it or any I have seen or heard of, I thought it would interest the thousands of readers of your extra Show number, and therefore send you a description of it and a cut of its "frame," which can be seen above.

The barn is 56 x 80; outside posts 20 ft. high; purline posts 33 ft.; 5 bents, 20 ft. spans, framed according to cut. Timber used is from 6 to 8 in.; sills 3 x 12 in.; plank bedded on stone wall. Barn proper is 56 x 60, leaving 20 x 56 ft. for straw house. Driving floor 16 ft. wide. Bays on each side floored with double inch boards. Double doors work on rollers. There is a ventilating door in each gable end, working with a small pulley from the floor; and one on the roof, which are very useful in time of threshing to allow dust to escape. On each side of the driving floor is a ladder reaching to the top of barn. Granary is 20 ft. square and bins 6 ft. deep on each side, leaving 8 x 20 ft. to keep the mill in for clearing up. Barn is well lighted. Should stone be scarce, the wall need be no higher than to clear the ground as shown in cut. The stable is in three parts: 1st—25 ft. is taken from one end and divided in three parts; the centre is the feed room, 25 x 20; stables 18 ft. deep, with five stalls in each part. 2nd—a yard 56 x 30, for young stock. There is a trap door at the side of drive floor to drop down straw. If water can be had, a well is preferable in this yard. There is a large door on each side to drive in and take out the manure. 3rd—The cow stable is directly under the straw house, 56 x 25 ft., divided into three parts; centre is feed room, 25 x 26, with trap door above to let down chaff. Stables are 15 ft. deep, and six stalls on each side. All stables well lighted, as well as feed room and yard. There are outer doors for stables and inner doors leading into the centre yards. The stables are $8\frac{1}{2}$ and 9 ft. high. The advantages over other stables are:—Lighter and shorter timbers. There are two rows of central posts run up to top of building, forming the purline work, and the whole building being framed into these posts, makes a much stronger frame. It is handier for storing, for forks working and for threshing; is better ventilated; all straw inside, all stock inside; manure all under cover. When a farmer has one of these barns he has all the outbuildings he requires.

ALEX. THOMPSON.

Uxbridge, August, 1878.

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## Value of Flax.

Mr. Watson, of New York, in presenting a table of statistics from the U.S. Agricultural Report, says:—

'Flax is the best crop in Morrow Co., Ohio, giving $27.08, or thrice above the acreage of $8.10 per acre. This, with the fact that the United States yearly imports about $25,000,000 in flax and its manufactures, or, in fifty years, $441,000,00, should cause a large production of flax; showing the policy of manufacturing *near the flax fields*, rather than shipping its products over continents and oceans for this purpose, marking an important era in our textile history.

The facts (official) that last year England made on manufacturing are: Cottons, $228,082,050; linens, $71,366,540; silks, $71.805,380; and woolens, $100,217,395; total, $471,461,365, or $1,250,000 per day. With Illinois' vast means of raising and manufacturing textiles; with State bounties for fostering said industries, it would employ and enrich labor, and return in taxes a thousand fold interest.

Were you to get your Governor or Legislature to grapple with this vastly important subject, I could give ample precedents and invaluable facts regarding American flax, hemp, jute and ramie, on which, in fifty years, the United States spent $915,000,000. Would we attain the wealth of England and France, even with our superior resources, must we not use the same or better means?

How applicable this reasoning of the New York statistician is to our Dominion! We have but to change the name of the State, substituting Canada for Illinois, and all that he says of the vast means of raising and manufacturing textile fabrics seems written especially for us Canadians. Are we to sit with hands folded when we might, by due efforts as a nation, employ and enrich labor that would return in revenue a thousand fold?

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Dear Sir, — I am in receipt of some of the leading Yankee agricultural papers, but I prefer the FARMER'S ADVOCATE to any of them.

ALEX. DUNN.

Chatsworth, Ont., July 29, 1878.

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I think the FARMER'S ADVOCATE a boon to the country. I wish you success in your labors in promoting the welfare of the farmers of this country.

THOMAS JOHNSTON.

Peterboro P. O., May 10, 1878.

## Construction of Tile Drains—No. 5.

BY PROF. MANLY MILES.

In my last article, page 202, the types make me say that "it is necessary to provide for the entrance of water at the top of the tiles," &c. This paragraph should read: "It is *not* necessary to provide for the entrance of water at the top of the tiles *where* silt is liable to be washed in with it."

As the efficiency of a drain will depend largely upon the free discharge of water at the outlet, it will be best to provide some permanent protection of this part of the system to prevent any displacement of the tiles by the action of frost or the treading of cattle.

A stone wall laid up dry, if of flat or quarry stones, or with water-lime mortar, if of cobble stones, will be found the most economical and satisfactory protection. The foundation of the wall should be laid in a trench at least three feet deep, so as to be below the reach of frost, and the top of the wall should reach at least three feet above the tiles, to support the embankment that will be required to protect them from all disturbing causes. The tiles that pass through the stone and form the outlet of the drain may be one or two sizes larger than the tiles immediately above them, so that an iron grating may be placed over the outlet to prevent vermin from entering the drain, without retarding the discharge of water when the tiles are running full. In making the moderate expenditure required for this permanent protection of the outlet one of the most frequent causes of failure in the working of drains will be avoided.

When drains are well laid on a uniform slope and with close joints, and the outlet is well protected, there are but two causes of obstruction that are worthy of especial notice.

Where bog-iron ore is found in the vicinity of springs that are discharged into the drain, a deposit of the oxide of iron is liable to form in the tiles and may completely fill them. The only remedy for this is to take up the tiles and remove the obstruction. It is well, however, to notice the ocalities where such springs occur as a possible source of future annoyance.

The roots of trees under certain conditions penetrate the joints of the tiles and form a fibrous, spongy mass that in the end forms a complete obstruction. In all cases in which I have observed this form of obstruction there has been running water in the tiles during the dryest seasons, and it seems that a perennial spring and a season of drought are the conditions required to produce it. It is often difficult to determine the tree or trees that are the source of obstruction, as those in the immediate vicinity of the drain are not always troublesome, while others at a considerable distance may prove very annoying.

I do not know of any remedy for this difficulty but the sacrifice of the trees that produce it. Care must, however, be taken to determine the real cause before resorting to this heroic remedy in localities where it is desirable to preserve the trees for shade or ornamental purposes. Willows and elms are more likely to be troublesome than other varieties, and the protection of the joints by cement which has been recommended by theorists has not proved an efficient remedy in practice. Where it is desirable to preserve the trees in the vicinity of a drain, a larger tile than would otherwise be necessary may be used, and when obstructions occur the drain must be taken up and the roots removed.

The place of obstruction may be detected by observing where the water rises to the surface, or is not removed rapidly after a heavy rain, which will be at or just above the seat of difficulty on moderate slopes, or where the descent is rapid, it may be just below it. In places where such obstructions are liable to occur it will be best to have a small well from the drain to the surface, so that any partial stoppage of the tiles may be detected from the diminished flow of the water in a wet time, that the removal of the roots may be made at a convenient time before complete obstruction occurs.

## Draining Springy or Swampy Land.

A Kentucky subscriber of the *Tribune* submits a case for advice. It comes under the above general subject, and as there is much land like his in the country, almost useless unless drained, and as the drainage is somewhat difficult, the case seems to deserve a somewhat extended notice. It would have received it long ago if the gentleman had signed his name to his letter, so that more full inquires could have been made. He says:—

"I send you a diagram of some wet land (which gives me a good deal of trouble and no yield), which I hope you will have time to examine and suggest a remedy. The swampy places hold water very tenaciously, the soil being black muck, with a very hard and compact sub-soil, composed principally of fine black gravel intermlxed with some clay."

From the diagram it appears that the field is an oblong rectangle, shaped and proportioned like the flat surface of a brick; that it contains twenty acres; that there is a fine fall from both sides towards a curved line running nearly through the middle, lengthwise; that this line has a rapid descent towards one end, but runs nearly its entire length through a strip of marshy ground from twenty-five to seventy-five feet wide; and there are several springs in the field, and that open ditches from these springs and through the marshes have already been cut. The subscriber says further:—

"When it rains the water will stand for weeks on this land and will not filter through into the ditch, though there is a fine fall toward every one of them. There is high land all around this swamp, and it has occurred to me that the swamp might be caused by the water settling down from the hills and forcing itself to the surface."

The remedy I should suggest would be to tile-drain the entire field systematically and thoroughly. If it is useless now, as its owner says, and the soil is naturally fertile except for surplus water, it would certainly pay, unless neighboring land (good without tiling) is exceedingly low in price, and labor and tile exceedingly high. The field lies admirably for tiling. A large main drain should be laid three feet deep, in a curved course through the field, following the line of the lowest level, and laterals at the same depth should branch out and receive the water from each of the springs. They should be so arranged at the upper end as to receive the entire water of the springs immediately, without wash or sediment. They should also be root-proof through their entire length (as crop roots will seek the running water inside), and yet admit the water from the marshy ground along their course. The size of these main drains must be governed by the amount of water furnished by the springs, the marsh and the surface water caused by rainfall on the entire field. Probably the large main should be at least six inches, and the main branches three or four inches in diameter. Then laterals should be run straight down the slope, parallel with each other, to the nearest main. These should be of two-inch tile, and sunk at least 30 inches deep, and from 25 to 30 feet distant from each other.

I think there can be no doubt that such a system of draining would make the entire field arable. True, the water stands in the muck, and does not filter through into the open ditches; but these are probably sunk only to the gravel, and if the muck is nearly impervious to water, the water would stand in it as described. But if the tiles were sunk into the gravel a foot or two the hydrostatic pressure would force the water through the porous gravel into the tiles. Laying tile is like knocking the bottom out of a pail, the watar is sure to find its way out. I have never yet seen the soil which a thorough system of tile-draining would not free of its surplus moisture. It would probably cost not far from $25 per acre to drain the field thoroughly, making laterals thirty-three feet apart all over the field.—*W. I. Chamberlain, in N. Y. Tribune.*

## Contributors' Notes and Queries.

To cover stubble land with some growing crop is a benefit which experience in Western New York and elsewhere has fully demonstrated. It protects the land from the effects of the hot sun, adds fertility, and improves the mechanical condition of the soil. The expense is only the seed and harrowing it in, or, if necessary, the use of the cultivator also. But, even if the plough has to be employed, it is found a paying operation, as it mellows the soil (particularly at this time of the year), and turns over what plant refuse remains. The ploughing should be light. Any thrifty grain may be sown. Millet is excellent on a good soil, which it requires. On indifferent soil oats will do, and on quite poor land, peas, always followed by plaster, which easily doubles the growth. Peas also, more than any other growth, shade and mellow the soil, unless we except buckwheat. Where the field is intended for some late spring crop, like corn, rye is the plant, as it grows till late in the fall, and starts early in the spring, making, at late ploughing, a large growth. It is one of the richest of plants, yet so great is the increased yield of the crop that follows, particularly corn, that there must be some other effect besides the plant food which it contains. This is also the experience with young clover, which, with a summer's growth, gets a root two or three inches in length in deey soil, and doubtless other plants are similar in effect.—*Montgomery.*

## Storing Show Potatoes.

How Mr. Peter McKinlay stores potatoes (who cultivates 600 varieties in Peckenham, England) an English exchange says:

When a row of any sort is lifted, the best samples are selected with care, and carried into a large airy outbuilding, which is lined with tiers of small wooden bins ranged one above the other, but open at the top, each one holding about half a bushel of potatoes. Into these the selected samples are carefully laid, and are covered up with dry sawdust, where they remain clean and fresh until required for the show table—whilst the remaining tubers of the sort, having been exposed to the air and fully dried for a few hours, are then buried in a small pit at the end of the row, where they remain until the show tubers having been removed from the bins to win prizes at exhibitions, the heaps are opened, the selected seed tubers are taken to the bins to remain for the winter, whilst the remainder go to the store for domestic consumption. As in front of each bin the name of the potato occupant is placed, each sort is easily found when required. There is no better material in which to keep tubers fresh and bright than clean, dry sawdust.

## Vegetable Mould Prevents Leaching.

A correspondent of the *American Agriculturist* throws out a useful hint to farmers who have light, sandy soils, when he says:

Almost all thin soils are peculiarly subject to leaching—that is, to having their goodness washed through them. The remedy is to make a soil full of fine mould. To this end the land must have a crop upon it all the time A growing crop fills the soil with roots. The roots decompose and form mould. Red clover is pre-eminent as a mould-making and soil-making plant. Buckwheat is useful chiefly when it is plowed under. Corn sowed as for fodder, being scattered in every third furrow when plowing, may be plowed under, or it may be cut and fed or cured; in either case it is beneficial. The roots and stubs make a great mass of mould in the soil, and where it is all made use of as a green manure the result is most satisfactory. Turnips cover the land quickly, and if plowed under are of marked benefit. In any event they prevent the growth of weeds, and as summer fallowing is always detrimental to such land, quick-growing green manure crops are our only resource, for by their use we work the soil, we kill the weeds and we improve the land, all at the same time and with little labor.

## The Weevil.

The presence of these insects may be detected by the weight of the grains. On throwing a handful into a bucket of water the diseased grains will float. After the female has, by means of her rostrum or beak, deposited an egg in the grain, she covers it up with a sort of glue of the same color as the husk, hence the difficulty of detecting the presence of this depredator in the granary during the time when it is in the larva state.

## Moss in Old Pastures.

A Scotch correspondent of the London *Journal of Forestry* in an article on "improving and laying down of permanent pasture," refers to the above subject as follows :

A still more formidable enemy to restrain and extirpate in old pastures is the encroachment of the mosses. They are to be found thriving more or less in almost all situations, and in every description of soil, but more particularly are they to be found in all their luxuriance on moist, inferior soils. Where it is inconvenient or undesirable to plough up and crop land thus overrun with coarse grass and moss, something may be done to eradicate them by going over the surface with sharp close-teethed harrows, crossing and recrossing till the moss is thoroughly scratched up ; clean off the rubbish, and therefore apply a good top-dressing of lime, or lime compost. Unquestionably pure lime is preferable, and put on as hot as it can be conveniently applied, at the rate of from five to six tons per imperial acre. The month of February and up to the middle of March, would seem to be the best time for this occupation. After the lime has got a good shower of rain, brush or chain harrow it well into the ground, removing all rubbish gathered up by the harrows, refuse of the lime, &c.

In about a month afterwards, and not later than the middle of April, sow a mixture of the best permanent grass seeds, at the rate of from twenty to thirty pounds per acre, which can be obtained mixed and ready, and suitable to the nature of the soil, from the seedsman with whom you are in the habit of dealing. If there be any tufts or tussocks of coarse grass it would be well to root them out. Brush harrow again, and finish up by rolling with a heavy roller. On sheltered rich lawns, and parks surrounding mansion houses, where sheep only are grazed, and where from various causes, the pasture is not eaten sufficiently bare by the sheep, we have seen moss and decayed vegetable matter collecting on the surface to a depth of an inch and a half, the ground feeling like a Turkey carpet under the feet. To such a length does this sometimes go that sheep cannot be kept more than a couple of months upon it before every animal is affected by foot-rot. In the end of the year we have seen the expendient tried of putting on for a few months an extraordinary stock of hardy wintering sheep, for the purpose of baring it down as far as possible. In some instances we have seen a crop or two of hay cut, the second year's crop being the heaviest, best quality, and easiest to cut. After the first crop has been removed a perceptible decrease in the thickness and sponginess of the surface will be noticeable, and if the second crop is a heavy one, and closely cut, all superfluous sward and moss will have disappeared. The following year the grass will be much cleaner and finer, and the sheep stock can be kept on throughout the season. We have seen a lawn so treated let for the season's grazing at an increase of one pound per acre, while the hay crop of the two preceeding seasons yielded a profitable return. But, as our agricultural friends are aware, the best of these methods for improving permanent pasture are but half measures, and are not always attended with the desired results.

If old and worn out pastures are to be improved in the general sense of the term, wherever it is at all practicable to do so, we unhesitatingly say, plough up and give a systematic and thorough course of cropping. Plough in the autumn, and have it completed before the end of the year, so as to allow it to get as much of the winter frosts as possible, and rot the tough surface, which is turned down. See that the furrows are laid over firmly and in such a position that they will not open back, as old tough lea is liable to do, more especially where the furrows are laid up-hill or against the hand, and thus a quantity of seed would fall between, and to some extent be lost. In this, the western district of Pethshire, the rotation followed, is the five, six or seven years' course. We sow with oats for the first crop, and, if necessary, give along with the seed at the time of sowing a liberal application of guano mixed with dissolved bones; this insures a heavy crop, which chokes and destroys the weeds. After the removal of the crop, commence to cross-plow deeply, accompanied, if practicable, by sub-soiling, finishing and plowing as early as possible, for the sake of the beneficial action of the atmosphere on the soil. In spring, work up the land thoroughly, great care being taken that all noxious weeds of every description are gathered, and either burned on the ground or removed. A crop of turnips or pototoes may then be taken, but the fewer of the latter the better for the land. Apply from fifteen to twenty tons of farm-yard manure, and three or four cwts. of artificial per acre. If farm-yard manure is scarce, apply less, and add more of the artificial, and if wholly sown with the latter, apply from eight to ten cwt. per acre, and if the quality is good (a matter at times open to doubt) and no other drawback occurs, a good crop of either turnips or potatoes may be expected.

## Horseshoes.

BY ALEXANDER HYDE.

To shoe or not to shoe is the question that is agitating horsemen nowadays, and it is one in which farmers should take an interest. We have long been convinced that our horses as commonly shod carry too much iron on their feet. To compel a horse to carry shoes that weigh from one to two pounds makes a great draft on on his muscular power, especially as this weight is at the long arm of the lever. A few pounds, more or less, on a horse's back amounts to nothing. Not so with a weight at the end of his legs. To sympathize with a horse condemned to carry heavy iron shoes on his feet we must put ourselves in his place and consider how heavy a light weight becomes when held at arm's length, and how difficult it is to make a good day's tramp with thick-soled cowhide boots on our feet. To run a race with such boots is out of the question. When in our teens we undertook a tramp of 30 miles in one day, and it was a great relief in the after part of the day to get our boots off and go it stocking-footed the balance of the journey.

We are not, however, prepared to say, as some do, that horses can go barefooted in the highly artificial life which they lead on our farms and especially in our cities. On the sandy plains of Arabia a shoe may be unnecessary, but we need further observation to convince us that on our hard roads and paved streets light shoes, on the fore feet at least, may not be advantageous. True, a colt's feet are seldom hurt on our roads. We recently examined the feet of a colt 5 months old that had followed his dam that day on the road 24 miles, and his hoofs were as perfect as though he had lain quietly in the pasture. We should be glad to believe that a colt, when put to service, would retain the same perfect hoofs, but there is quite a difference between trotting along without a load and hauling a heavy burden, and between a soft summer road and the hubby icy one of winter.

The argument of the advocates of non-shoeing is that the expense is great, that horses are more damaged than benefited by shoes, and that if accustomed to shoeless feet from colthood they are more sure footed, are seldom lame, can travel faster and further, and are sounder every way. As to the expense of shoeing there can be no doubt. The blacksmith's bills testify conclusively on this point. We are not so certain that all the diseases of horses' feet and legs are to be attributed to wearing iron shoes. That their sharp calks cause many wounds; that blundering smiths often make lame horses; that the weight of so much iron causes a great strain on the muscles and sinews of the legs, and that the wear and tear of horses, stables, grooms, and everything connected with horse-keeping, is aggravated by the common mode of shoeing we have abundant occasion to know. That a horse can travel further and faster on a smooth road without shoes we do not doubt. Still we need further experience before we can adopt the theory of shoeless horses.

This subject was discussed at the last public meeting of the Massachusetts Board of Agriculture, when Mr. J. E. Russell, of Leicester, who has made horseshoes a special study, read a paper on "The Management of Horses," and thus gave vent to his views : "Our greatest folly in the management of horses is in submitting their feet to the clumsy handling of a stupid, ignorant, and often drunken mechanic, to have him shod. I will not here contend that horses should not be shod at all, because shoeing, though an invention of barbarians, is, when carefully used, an assistance in utilizing the powers of the horse in his artificial life; but in the common way of doing it, it is the most onerous tax imposed upon mankind. A horse condemned to wear heavy shoes to which heel and toe calks are affixed begins to fail from that moment. At the age when he should be in the fullest enjoyment of his strength he is called old. And few of our horses live out half their days, the great cause of their decline being from diseases of the feet, all of which are caused by ignorant shoeing. In the management of colts on a farm, they should not be shod until they come to rapid and long-continued labor on hard roads, and then the lightest possible application of iron should be made. The safest way is to let the hind feet be bare, and shoe the fore feet with tips or crescents of iron that only cover the toe. It must be borne in mind that the frog is the natural level of the horse's foot and the hoof must be trimmed keeping that ever in view."

In the disucssion which followed the reading of Mr. Russell's paper it was generally conceded that shoeing of horses is a necessary evil, at least so far as the fore feet are concerned. One gentleman testified to having a mare 8 or 9 years old that had never had a shoe on her hind feet, except in special icy times in Winter, and that he had never known her to make a misstep when her shoes were off. Mr. E. F. Bowditch, of Framingham, who has given much attention to this subject of horse-shoeing, expressed himself thus : "A horse's foot in a state of nature, when it is worn down properly, is wide at the the heel and the toes are worn down, the bars are in perfect condition, and it has a wide and elastic frog which takes all the jar from the foot. The cause of heat in a horse's foot is, no doubt, the jarring of the laminæ of the foot. The outside of a horse's foot, as we all know, when it is hot, is very sensitive, and causes the horse acute pain. Why has his foot got into this condition? It is because, in shoeing, the frog, which nature meant to take the jar of the foot, has not been allowed to come on the ground, and it becomes a dried, shriveled-up little thing of no great use at all. I have no fear of hard roads and no fear of pavements, if a horse's foot is kept in proper condition. My way of shoeing is to get a level bearing on the horse's foot, and keep the frog on the ground. Never have a heel or toe calk except when it is absolutely necessary in winter. The last winter I rode my saddle mare (and of course my neck is worth more than anything else I own) on glare ice, with a small bit of iron about four inches long curled around her toe, and with a very small toe-calk. I recollect galloping out on the ice where the men were at work cutting it, and I had no fear of her slipping, although the horse did so that was marking the ice and had calks on two inches high."

The French farriers have studied this matter of horse-shoeing more carefully than our common smiths, and their aim is to put just as little iron on a horse's foot as possible, whereas it is seemingly the purpose of most of our smiths to put on as much as they can, and it must be confessed that they work generally according to the instructions of the farmers, many of whom think they do not get their money's worth unless their horses are shod with a large amount of iron. The favorite system of shoeing is the Charlier. "The Charlier shoe is just a little rim of iron put about the hoof set in a groove, so that the whole bottom of the horse's foot comes directly upon the ground when he is travelling, the frog, bar, sole, and the whole bottom of the foot, just like a barefooted horse. It is only the rim of the foot that is protected." We fear it will be some time before our farmers and blacksmiths will be convinced that so little iron as this is all that is necessaay to protect a horse's hoof.

The agitation of this question of shoes or no shoes has had very much the same effect on farriers as the question of total abstinence on the temperance cause ; if it has not done away with the use of iron on horses' feet, it has greatly diminished its consumption in this form. Mr. Goodenough's patent shoes are in fashion, and are very light, and this shoe carries out the principle which Messrs. Bowditch and Russell advocated before the Massachussetts Board of Agriculture, of keeping the frog down on the ground. We are by no means certain that time and trial will not decide that iron and steel are not more neccessary for the protection of horses' hoofs. Should it be so, the horses will rejoice, for there is no question that they suffer immensely from being rough-shod. We remember putting callked irons upon our shoes when we were young, so that we might stand up on ice. They answered the pupose for which they were intended, but they made us lame after a short time, and we have no doubt that much of the lameness of horses is attributable to their calked shoeing. The conclusion, so far as experience now shows, is, that if horses must wear shoes, let them be made as light as possible, and so made that the frog may always touch the ground.—*N. Y. Times.*

# Garden, Orchard and Forest.

## Small Fruits—When to Plant.

BY E. M., DRUMMONDVILLE, ONT.

Most writers upon this topic are interested in the sale of plants and have "an axe to grind," and are therefore inclined at this season of the year to urge fall planting. I propose to set my "axe" aside, and give my honest opinions, based on an experience in the milder portions of Ontario and on a sandy soil.

For ordinary field culture strawberries should be set in the spring. For special garden culture, plants may be set early in the fall, especially if potted plants are used. Families without strawberries will generally be inclined to adopt this plan in order to have fruit in the June following. Fall set plants have to pass through two winters and take their chances with the weeds for nearly two years before a full crop is obtained, while spring set plants have a mellow soil to start with and only one winter to pass through to reach the same result.

Black-cap raspberries, if planted in the fall and each plant mulched, may succeed, and if they do so, will make a large growth the first year. Spring is, however, the safest season to plant black caps. Currants, gooseber-ries and red raspberries have succeeded with mebest when planted in the fall. These will all succeedif planted in early spring, but it is seldom possible to get them planted before they start to grow. If planted in the fall, they are growing nicely about the time that spring planting begins, and make a good growth the first year. The ordinary red currant dropped its leaves in midsummer this year, and could be planted at any time. The Roby Castle retains its foliage till November, and is by far the most valuable currant we have.

Grapes are best planted in the spring, later than most other fruits.

As blackberries are rather tender, spring would seem to be the safest time for them. One gentleman who publishes a journal and has a very large "axe," is just now urging autumn's claims. Some there be who say plant them not at all, and their profitablen ess is certainly an open question. The blackberry c op of 1878 has paid very well, but often it is otherv ise. With me Lawton blackberries make a very n ce hedge, which has resisted the frosts of three winter and would resist thieves as well. Thieves, howe er, walk around it, as I know to my sorrow. The r sorrows are to come.

It is a very safe plan to secure all the small plants that are required in the all, and plant such as succeed best with fall planti g, and keep the others till spring. Any of them may be safely kept if covered up with dry soil, whic h soil should be scattered among them so as to preve t heating. In winter an additional covering of coarse manure may be used to prevent freezing and tha wing. Plants thus kept are ready for early spring pl nt-ing, which is rarely the case where they are o tained from nurserymen after spring opens.

## The Codling Moth—Another Remedy.

Mr. Tuttle, President of the Wisconsin Horticultural Society, says he has discovered a remedy, or rather a trap, for the codling moth. This is the trap:—

Take shallow pans or saucers, and place some strong apple-vinegar in them, and hang among the branches of the trees. The smell of the vinegar attracts the moths, and they are caught and drowned in the same.

Mr. Tuttle says he has caught over forty codling moths in one of these pans in a single night. He counts it a great success. He says he notified C. Downing, the leading authority on fruit in this country, of this matter, and of his success; and that Mr. Downing advised him to disseminate the information through the medium of the press, as it would be of immense benefit to the fruit-growers of the country. Certainly this is important, if true.

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A number of years since, in the *Genesee Farmer*, I saw directions for keeping at bay the destructive peachborer. It was simply an application of air-slaked lime (half a peck), early in May about the roots of the tree, the earth having been previously removed to make room for it. This spring I set out a peach orchard, and bearing in mind the suggestion, made an application, of however, only one half the amount specified. A rain came on soon, forming a sort of lye in the hollow at the base of the tree, and presently I noticed on quite a number of trees leaves wilting. I removed the lime as much as possible immediately, but one-fourth of my trees are dead. Could the trouble have been the lime? The lime used was fine lime, procured directly from the kiln. Again, I have seen the statement that fine iime thrown upon plum trees when the fruit is just set, will save it from the curculio. For two or three years I have tried this, and althought it seems quite effectual, yet, when about half grown, the plums begin to rot, and often nearly the whole crop is lost. Has the lime anything to do with this?

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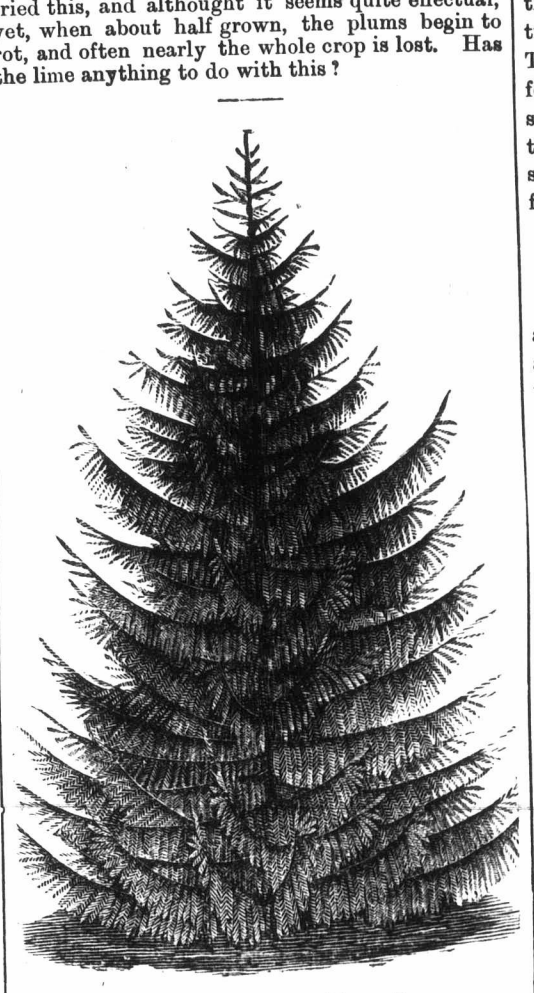

## The European Larch.

BY HORTUS.

The value of the European Larch as a timber tree can hardly be over-estimated by the Canadian farmer. The time is fast app roaching when acres of it will have to be planted in Canada, as in Europe, for the many uses its wood is particularly suited for. Though closely allied to our native Ta marack, it is of a far superior nature from the rapi dity of its growth and the straightness of the trunk. The wood is remarkably heavy and of great st. rength, and lasts a length of time if properly seas oned. The wise farmer will have avenues or plantatio ns of it planted without delay. Downing says: "The extremely rapid growth of this tree when plant ed upon thin, barren and dry soils, is another great merit which it possesses as an ornamental tree; a d it is also a necessary one to enable it to thrive v ell on these very rocky and barren soils, where it i most in character with the surrounding objects. It is highly valuable to produce effect or shelter suddenly, on portions of the farm too thin or meagre in their soil to afford the sustenance necessary to the growth of many other deciduous trees."

Other good authorities unite in giving expression to the importance and value of the larch, and especially for the older settled parts of the country—where the woodman's axe has been ringing for years, but where soon, if nothing is done to keep up the supply, its music will be stopped and nothing be left but the memories of its echoes through once shady woods and stately forests.

The larch can be safely transplanted in the autumn, when its foliage begins to fall, especially large specimens for the lawn or lane. For large plantations select small plants. Early in spring avoid exposure to air, and be careful in packing. After being established they make from two to three feet of wood annually, so that in a very short time the largest may be thinned out for the various purposes of firing, fencing and building. It would prove a good investment to those having the land to plant out for the purpose of growing trees suitable for telegraph poles and railway ties. There is sure to be constant and increasing demand for these from the gradual disappearance of cedar swamps by improved drainage and bush fires, and the demand for the wood will make any other good substitute, as the larch, receive a hearty welcome from those interested in its use.

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## Quince Cultivation.

Why is it that the quince, which is as hardy and as well adapted to our soil and climate as the apple, is comparatively scarce, and commands on the average three or four times as much in our markets? There is seldom, if ever, a "glut" in the market, and prices are uniformly remunerative, bringing the producers for handsome fruit from $2 to $4 a bushel, in New York and Boston, almost every season. The apple, in the fresh or dried state, enters into the annual supplies of almost every family, as cider, vinegar, jelly, sauce, and other preparations, and is also a profitable feed for our domestic animals, while not one family in ten knows anything of quince preserves and jellies. It is really one of the most appetizing and wholesome of the sweetmeats found among the stores of our housewifes; and the cultivation of this fruit should be greatly extended. We know of no fruit that promises so good returns as this to the intelligent fruit-grower. If we look at the quince plantations as we ordinarily find them, they are few and far between in the farming districts. The popular fancy is, that the bush flourishes best in a damp soil, and if there be an undrained swale on the premises, we may safely look for the quince bushes there. More frequently than otherwise they stand in the grass, receive no cultivation, and after a few brief years die, either from stagnant water, or the attacks of the borer. Under such treatment the trees had no chance to bear fruit, and make themselves profitable. The quince wants a deep, rich, rather moist soil, but it should always be well drained. Good corn land, that will bear maximum crops of grain, will bear good quinces. No fruit pays better for thorough cultivation, and the ground should always be kept under the spade or plow, and should, if we want abundant fruit, receive a good dressing of manure every season. The bush or tree requires very little other care than the occasional thinning out of the branches if they crowd too closely. The thinning of the fruit where it sets too abundantly will increase the size and profitableness of the crop that remains. The fruit as well as the flower is quite ornamental, and an attractive feature in October and November. The "Apple" or "Orange Quince," is by far the best variety. It ripens earlier, and brings the best price in the market. The quince is easily propagated from cuttings, and this is the simplest and best method of multiplying a desirable variety. Cuttings put down in the spring in a moist, well drained soil, a little shaded, will root about as readily as the currant. In making a plantation the young trees should be set at least ten feet apart, and if the soil is rich, fourteen feet will be none too much,

## Raspberries—Varieties.

BY E. M., DRUMMONDVILLE.

One of the amusing features of the Fruit Growers' meeting held at St. Catharines in July, was that each fruit, and each variety of fruit, was condemned in turn by one or the other of the members present.

If a novice were to dig up each variety as condemned, he would be left with a varied assortment of weeds, for even weeds and shallow culture had their brave defenders in that assembly. It will therefore be understood that in naming varieties which succeed here, we cannot be held responsible for their success in all soils or under all methods of treatment. The Mammoth Cluster is the best black-cap raspberry; Doolittle is earlier and Seneca later and a better grower; Davidson's Thornless does not suit all soils, but is liked by some. It is the earliest black-cap, but we need very few early raspberries, as buyers are at that time badly demoralized by cheap strawberries. Philadelphia is the most profitable red raspberry that has been thoroughly tested here. It does not throw up many suckers, and grows rapidly. Clarke produces larger, brighter colored berries, but not so many of them. The experience of 1878 gives us a better opinion of this variety. A stiffer soil is said to suit it be still. Highland Hardy is very

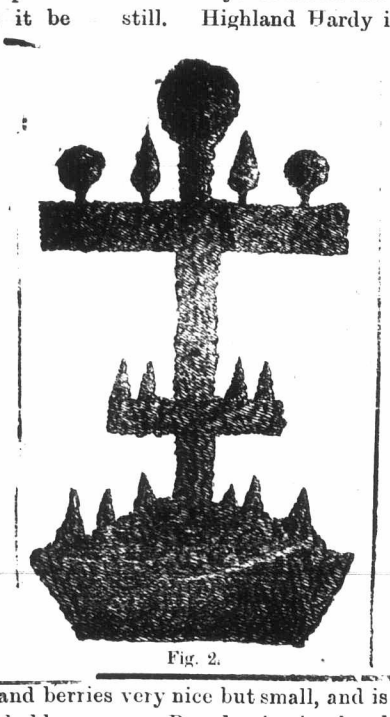


Fig. 2.

early, and berries very nice but small, and is it not a remarkable cropper. Brandywine is a handsome, dry, firm berry. If it proves hardy and productive in our climate, it will be very valuable for shipping purposes. The Turner is a splendid grower—berries large and good. Its productive qualities are not yet tested with me, but it is well spoken of by those who have tested it. The Herstine produces a very nice berry; if the plants can endure the extremes of heat and cold, and give large crops in this climate, it will hold its own with others. These questions will soon be settled. Read's Prolific is a handsome berry, which is said to be a cross with a large wild sort and to resemble it in flavor.

An idea still lingers in the public mind that the wild red raspberry has a flavor superior to the cultivated sorts. To explode this idea your readers have only to test them side by side with any of the civilized varieties that I have mentioned. Varieties better still in quality are known, but they have not proved to be sufficiently hardy and productive for planting on a large scale.

The raspberry crop of 1878 was a very small one. The heavy frosts did them more harm than they did to the strawberries, as the latter had a reserve force of blossoms which the former lacked.

## Novelties in Gardening.

When at the Paris Exhibition we noticed several new designs in gardening which were to us novel and very attractive, and several of which we shall give representations of. We give you in fig. 1 an illustration of apple trees that were used as a border, or for the back-ground for small plants. These apple trees were planted about 12 feet apart. One limb only was allowed to grow on each side; these limbs had short fruit spurs, on which the apples were growing thick and fine. The trees were only 18 inches high, and they may be just as easily trained in this manner in many of our gardens by those who desire effect. We give you this representation to show you how it is done.

Fig. 2 represents a very remarkable specimen of evergreen pruning, and must have taken many

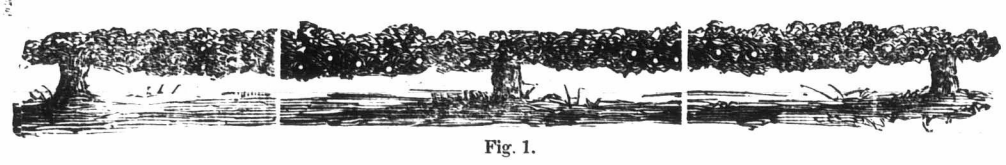


Fig. 1.

years of great care to attain such perfection. The whole tree might be about eight feet high. The foundation was all as green and fresh as if it had never been checked, and the side pieces or stands were also all green and very neatly and closely trimmed. The very small miniature trees shown were extremely neat and grew in the manner shown in the illustration. All of this is from one stem. Some of our lady gardeners might amuse themselves and astonish their friends by training and pruning evergreens in different designs.

Fig. 3 is a ship; all the yard-arms are quite green. Fig. 4 is a bird on a nest. The nest was trimmed in the form of a box. Do you not think that such designs would be pleasing and novel in Canada? Who will be the first to show us such devices as these at our Exhibitions? We have yet some more remarkable plans to show you. We were obliged to draw these ourselves. Perhaps some of our Canadian visitors may have seen these and other rare designs at the Paris Exhibition.

## Keeping Grafts Through Winter.

Nurserymen who cut large quantities of grafts late in autumn, keep them in boxes in cellars packed in damp moss; but farmers and others who wish to preserve a few for spring grafting, may not have these appliances at hand. For such, a simple and perfect mode is to bury them in a dry place out of doors, in an inverted open box. Fill the box partly full with them, nail two or three strips across to hold them in place, and then place the box in a hole dug for the purpose, with the open side down, and bury them half a foot or so in depth. They do not come in contact with the earth, and remain perfectly clean; and the moisture of the earth keeps them plump and fresh without any danger of their becoming water-soaked.

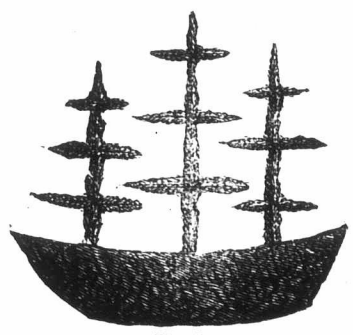


Fig. 3.

Grafts which have become shrivelled by exposure are thus restored and will grow. It is often advantageous to cut grafts in autumn, as there is then no danger of their vitality being lessened by exposure to intense cold, and it is often more convenient to cut them or procure them from a distance at this time. In marking the labels with a lead pencil, remember that if the wood is wet before writing, the names will last ten times as long as if written dry.—*Rural World.*

## Canned Fruits in Demand.

The home and foreign demand for canned fruits and vegetables is yearly on the increase. So say prominent canners and dealers. Every successive season brings forth some new idea. Last year a Delaware establishment undertook to put up a small quantity of preserved blackberries and huckleberries as an experiment. The venture proved a success, and it is anticipated that these fruits will henceforth occupy a prominent position in the ranks of canned goods.

Nearly every kind of fruit is now preserved by the canning process. Canned apples, strawberries, whortleberries, cherries, grapes, peaches and pineapples are largely exported to England. So, also, are asparagus, peas, corn and tomatoes, in the vegetable line. A large number of American canners have specimens of their products on exhibition at the Paris Exposition. and it is calculated that the fact will result in a very considerable increase in the foreign consumption. One exhibitor has already received an order from Paris for 100 cases of canned pears, and several sample orders have been received from different parts of the continent. There is also an active foreign demand for canned soft crabs, shrimps and salmon.

"You would be astonished to learn how the consumption of fruit butter is on the increase," says a manufacturer. "The trade is nearly doubling itself every year. We now make butter out of peaches, plums, apples, quinces and pears. From what we learn from the grocers the consumers are mostly to be found among the poorer classes, who find the prices—from 15 to 20 cents per pound—very much more advantageous than that charged for milk butter. We have received a few sample orders for this class of goods from England, but our agents do not give us much hope that a large foreign trade will be developed. Still, as I have said, the home demand is increasing at an enormous rate."

The canners represent their trade as of a very risky character, in a pecuniary sense. Sometimes

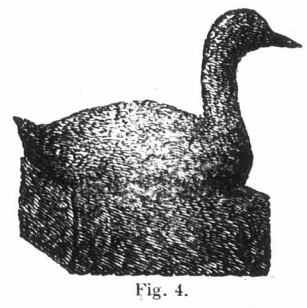


Fig. 4.

they will buy a large stock of fruit at what they consider the lowest figure the market can stand. After the purchase has been concluded, prices will go down another notch, and the canners who have waited expectantly are thus enabled to put up their goods at a lower figure than their competitor who has bought high. The latter, to maintain his place in the market, has to adopt the low prices, which in many cases will not recompense him for the cost of canning. In this manner several large canners lost considerable in last season's business.

## Growing Chestnuts.

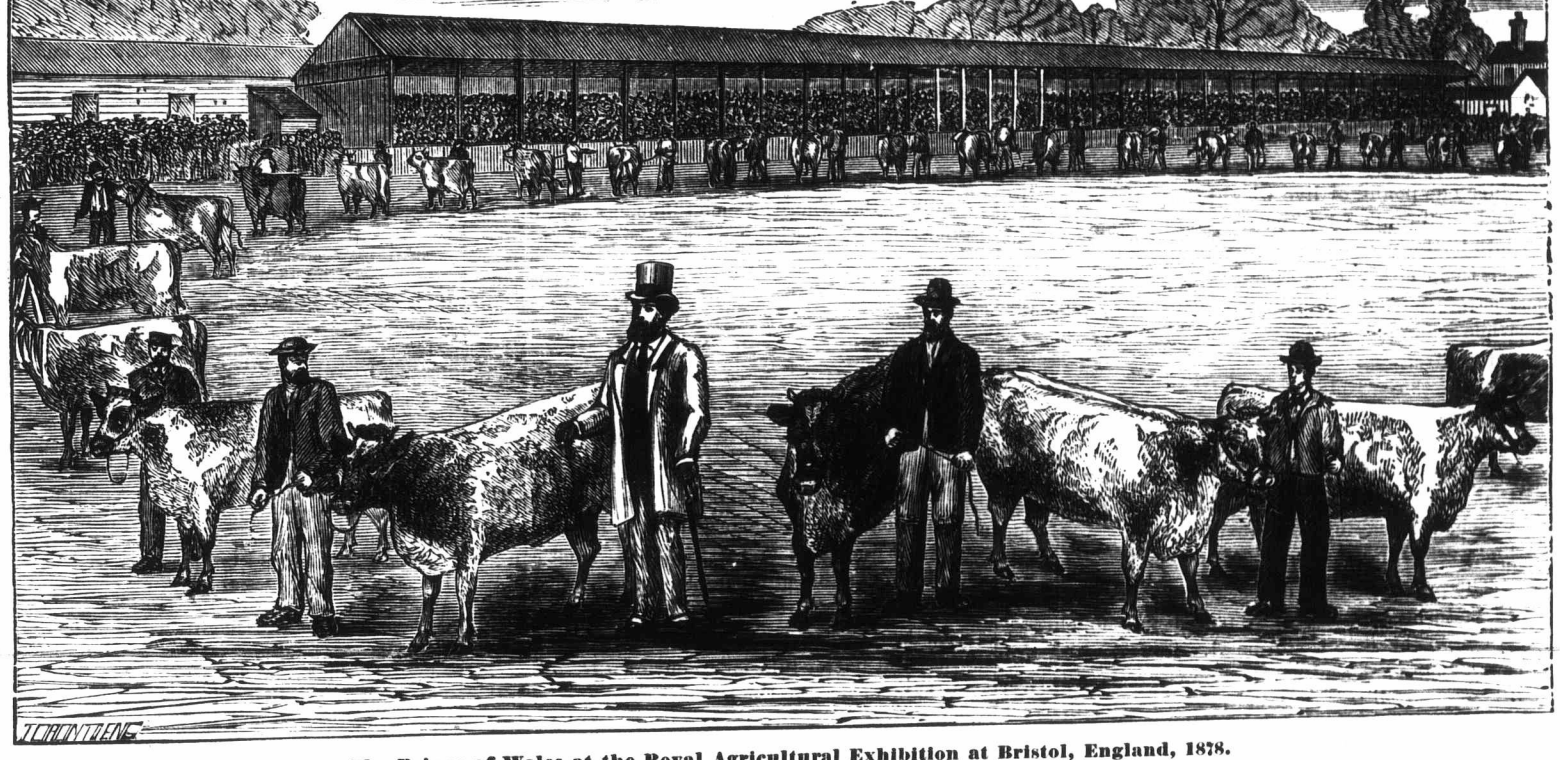
We have on repeated occasions suggested the growing of chestnuts upon soils where but little else will grow, as a means of profit, both in fruit and wood. The chestnut is rapid in its growth, and will in from eight to ten years begin to bear a crop of nuts from seed. The seed, however, should be planted as soon as the fruit is ripe and before it becomes dry, and should be planted where the tree is desired to stand. Chestnut will thrive almost anywhere, and would be especially valuable where timber is scarce and rough land abounds to appropriate to the purpose. A good selection of the American chestnut is the best. Our nuts are much superior to the Spanish, French or Italian, though not nearly so large, and even grafts can be set with the ease and certainty of the pear. There is always a market demand for the nuts greater than the supply, or any supply likely to be furnished.

The question is one of real interest in every section where scrub land is abundant and timber scarce; or wherever there is such land, as a means of profit with reference only to the fruit.—*Germantown Telegraph.*

## The Prince of Wales at the Royal Agricultural Exhibition at Bristol, England, 1878.

The above was drawn by our English artist on the ground, and engraved by our Canadian artist. The greatest object of attraction at this Exhibition was the Prince of Wales. Crowds rushed in every direction to get a glimpse at him, and cheer after cheer filled the air as he approached or receded from different parts of the grounds. He paid particular attention to the stock, and carefully examined many of them. The only animal he actually handled was Kirklevington Empress 3rd.

The Prince and the animal are both conspicuous in the engraving. The Prince had several gentlemen in attendance with him, but our space would not allow of more figures to be shown to advantage. This animal was considered the most promising heifer on the ground, and drew a great deal of attention. It carried off the first prize in its class. We made inquiries about the pedigree of the animal, and found that neither sire nor dam were on the ground. Being rather desirous of seeing the stock that this animal was bred from, we went to Berkley Hall, in Gloucestershire, the country residence of Lord Fitzhardinge, who is the owner of the heifer. He has a very fine herd of choice Shorthorns, among which is the Duke of Connaught, the sire of Kirklevington Empress 3rd. He is a very superior animal, excellent in every point, but most so in length and depth of flesh on the hind quarter. The dam of the heifer Kirklevington Empress is also a fine animal, and has a pedigree of great renown. Among this herd are to be found some of the gems in Shorthorns. His Lordship can well afford to set a pattern to other farmers, as he has had the means and spirit to collect and maintain such a valuable herd, being the possessor of one of



**The Prince of Wales at the Royal Agricultural Exhibition at Bristol, England, 1878.**

THE STATELY HOMES OF ENGLAND,

namely, Berkley Castle. This the family has owned for hundreds of years. It was one of the old Danish fortresses, and was taken possession o by William the Conqueror. The castle is large, old and peculiarly constructed. In it is the room in which Edward II. was murdered; the bed curtains, bed clothes, furniture and wall hangings are still there, mostly in an excellent state of preservation, although the murder was committed 550 years ago. Around the castle are some of the most beautiful old trees we have ever seen, well deserving a visit from real lovers of nature's grandest arborial productions. The beautiful ivy, yew, cedar, laurel, pine and oak are most charming and enchanting. At this place pheasants were seen walking leisurely about the grounds in sight of the castle. The old oak mentioned in Doomsday Book is still alive in the deer park. This park contains 400 acres, and has a high wall all round it. It was a grand sight to us to walk in this park in the evening among these magnificent old trees, and to see the deer—some red, some nearly black, some spotted—and the fawns keeping up a peculiar little bleat sounding much like the shriek of the sea gull. In one part of the park was a wire fence, a lot of hen coops, hens and a thousand young pheasants. These are raised for the shooting season; the gamekeepers collect the eggs from the nests in the woods and rear the pheasants under hens, because the foxes would kill all the young ones if left in the woods. There are five other breeding places for pheasants on the estate. The estate consists of 20,000 acres in one block; nearly the whole of it is rented to tenants in lots of from 100 to 300 acres each. Some of the tenants are worth from $200,000 to over $300,000. Let our American friends read this at their stump speeches: Tenant farmers in England worth over three hundred thousand dollars!

We went among the tenants and peasantry. They have a happier and better time, and live more comfortably, more respectably and in a better manner than half the dwellers on 5th Avenue in New York. They are happy and contented, pay easy rents, and delight to please his lordship; they strive to see who can give him the most sport by protecting the game and the foxes, for foxes are kept on this estate as well as other game; for instance, they killed 160 foxes last year. Lord Fitzhardinge keeps over 200 hounds and 40 horses for hunting. He goes out four days in a week in the hunting season. Each huntsman requires two horses a day to keep up with the hounds, and a horse is only fit to be used twice a week, the work is so hard on them, and a pack of hounds are only fit to run twice a week. Some of the ladies join in this sport, and one lady is considered as good a rider as the huntsmen. Many a fall takes place, and occasionally a life is lost, but the sport is such that all who can sit on a horse and can keep one, and can afford the time, will join in the hunt. His lordship lets any one follow the hounds that chooses. Many of the farmers keep a horse or two, and enjoy the sport occasionally. There are often over a hundred horses at starting, and many a mishap occurs before night sets in, but a fresh lot will be there the next day. They come from long distances to enjoy the sport. The farmers do not mind the huntsmen crossing over their wheat fields; they do not find that their crops are injured in harvest time, although they may look bad after a hundred horses have galloped across the fields in wet weather. Besides the shooting, hunting and fishing on this estate, his lordship has his grouse shooting in Scotland; he is a good shot, good horseman, a jolly, happy man, as are also his tenants, who are fond of him.

The Prince of Wales enjoys the sports occasionally at Berkley Castle. The peasantry of this estate appear to be happier by far than the poor or middle classes in America. They live well, have short hours, and appear to work steadier than the men do here. England, "with all thy faults, we love thee still." Question—Is there any man in America who can enjoy himself equal to this, or is there one who would or could do so much for the pleasure of others? It will take three hundred years before Americans can imitate this, and it is doubtful if they will ever be able to do so.

# Dairy.

## Different Ways of Utilizing Milk.

BY L. B. ARNOLD, SECRETARY AMERICAN DAIRYMEN'S ASSOCIATION.

The question is very often raised—Which is the best way to dispose of milk, selling it by the quart, or making it into butter or into cheese?

The consideration of a few facts will decide this query with tolerable accuracy. In the first place, it may be stated that the cost of making a given quantity of milk into butter or into cheese is so nearly equal that it may be assumed to be the same. Another point consists in the fact that with milk of average quality it will take ten lbs. of milk to make one of cured cheese, and that the milk which would make two and a half pounds of cheese would make one pound of butter.

Another item which will enter into the question is that, when milk is estimated by weight, a quart is considered to weigh 2½ pounds. The refuse of butter and cheese making must also be taken into account, as it has not the same value when milk is made into cheese that it has when made into butter. The refuse of the dairy is fed with very unequal effect by different people, owing to difference in care and skill, and to thriftiness or otherwise of the stock consuming it. If fed as an accompaniment of some suitable food like grass, and to young and thrifty animals like calves or pigs, and is used while it is fresh and before it has become much soured or stale, the whey from forty pounds of milk when made into cheese will produce one pound of live weight; and the sour milk and buttermilk from twenty pounds of milk made into butter will also make one pound of live weight, worth in either case four cents a pound, making the refuse from one pound of milk worth one mill when made into cheese, and two mills when made into butter.

From these facts as a basis we can figure approximate results. We will take 1,000 pounds of average milk and suppose it to be sent to a factory to be made into cheese. Experience has proved that it will make 100 pounds of cured cheese, which, for making and boxing, factorymen who find everything charge $1.50.

The price generally charged for delivering milk to factories is one cent a pound on the cheese, which in this case would be $1. The value of the whey being one cent a pound on the cheese, is also $1, which will be just equal to the cost of delivering the milk, and both may therefore be left out of the account. We have then only to subtract the cost of making from the selling price of the cheese, which is now $8, to get the net value of 1,000 pounds of milk when made into cheese. We have $8—$1.50=$6.50=net value.

If we suppose the milk to be taken to a factory and made into butter, the cost of delivering and manufacturing will be the same as before, $2.50, but the value of the refuse will be $2 instead of $1, as in the case of cheese, leaving only 50 cents to be deducted from the selling price of the butter to show the net returns. As the value of the refuse is worth $1 more in the case of butter than in that of cheese, the butter from the 1,000 pounds of milk may sell for $1 less than the cheese and yet be equally profitable—may sell for $7 instead of $8.

As a pound of butter requires two and a half times as much milk as a pound of cheese, there will be 40 pounds of butter in 1,000 pounds of milk, which must sell for $7 or at 17½ cents a pound to be equal to cheese at 8 cents a pound. Deducting balance of 50 cents—the cost of delivering and manufacturing over the refuse—we have 17½ cents x 40 = $7 and $7—50 cents = $6.50 = the same net value as when cheese was made. It will make no material difference whether the milk is made into butter or cheese at the farm or at the factory, since the cost of making at the farm is enough greater than when made at the factory to pay for the cost of delivering the milk to the factory.

If milk is to be sold at the farm as we have supposed the butter and cheese were, it should bring enough to make the seme net returns as when made into butter or cheese. The 1,000 pounds of milk should bring $6.50. The number of quarts of milk in 1,000 pounds is 470, and if sold for the gross sum of $6.50, it will give 1.4 cents a quart. Hence making cheese at 8 cents a pound, butter at 17½, and selling milk delivered at the farm for 1.4 cents a quart, are all equal. If milk is to be sent away and delivered to consumers, the cost of transportation and 2 cents a quart for distributing should be added. As the proceeds from the different modes of disposing of milk rise above or sink below the proportions indicated by these figures, will each be more or less profitable.

There are, of course, a great variety of circumstances which will modify results. If one has Jersey cows which give very rich milk that would make nice butter, it would not pay as well for selling by the quart as for making butter. And on the other hand, if one had a herd of cows which would give a flood of milk with little butter in it, he would profit more by its sale than its manufacture into butter. The varying circumstances of location and market and conveniences of manufacture must often enter into the mode of disposing of milk. But where no such influences prevail, the proportions given will form a very good guide to the best disposition of milk.

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## American Farm House Dairies.

In a review of the dairy exhibit at the late Show of the Royal Agricultural Society of England, the London *Live Stock Journal* makes this statement:

"The fact is that the finest cheese and butter in the world is made in English farm house dairies, and nothing the foreigner can bring us can reach our finest qualities; and if this is so, what can we gain by going abroad for implements by the use of which, and by the results of fifteen years' scientific research, the foreigner himself has only made cheese and butter inferior to our own?"

Whatever may be the benefits resulting from the modern factory manufacture of butter and cheese, there are two facts that must be admitted in regard to it, which will seem to demonstrate that the importance of the system had been somewhat overestimated. The first fact is that mentioned in the above quotation—that in quality the domestic product can be made fully equal, if not superior to that of the factory. The other fact is, that in respect to butter, the great bulk of the supply must come from the farm house dairies. It is therefore obvious that in neglecting improvement here, we are overlooking a most important branch of agricultural industry. Will not some of the old-fashioned dairymen of the "Reserve" favor the public with their views on the subject? For the ordinary farmer, even in "new Connecticut," would it not be quite as profitable to rear the calves, as was the old custom, on skim milk with a little oil meal, middlings, or shorts, and make the butter at home, feeding the buttermilk to pigs, as to run the whole produce of the farm to the cheese factory? I do not say it would, for I don't know; but judging from the stories told by both farmers and factorymen, it would seem that the present system was not very profitable to either party.

To say nothing of the prevailing opinion as to the injurious influence of the factory system upon the fertility of the land, it can hardly be questioned that, as a general rule, the more satisfactory system for the farmer is to devote his land to the production of grass, grain and stock. And I doubt whether the milk produced on the farm may not in many instances be more profitably devoted to the domestic dairy than to the cheese factory.—*Ohio Farmer.*

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## Relieving Choked Animals.

A few years since, after having given our cows a feeding of uncut apples, and then carelessly left them for a half-hour or more without observing them, we were notified that a fine yearling heifer, the pet of the herd, was in a critical condition. We found her with her mouth open, head down, and seeming to be in severe pain. She groaned almost incessantly, breathed with great difficulty and was badly bloated, the skin back of the ribs being puffed up and as unyielding as a drum head. We supposed, of course, that an apple, stuck in its passage from the mouth to the stomach, was the cause, but the symptoms were quite unlike a common case of choking, especially in the early stages. It seemed more like bloat, caused by fermentation of the food in the stomach. We immediately turned her loose, and drove her rapidly a quarter of a mile and back, but without giving relief. We next prepared a pint of warm soap suds and attempted to pour it down her throat from a bottle, but without success, as there seemed to be no passage for food or drink from the mouth to the digestive organs. Knowing that something must be done very soon to relieve her, or she would die, and that quickly, we went to the library and taking down "Cole's Diseases of Animals," run down the long list of remedies for choking and bloat, to find, if possible, something simple which might be applied without the risk of killing the heifer. Skipping all those which required the use of probangs, stomach pumps or other machinery, which it would be impossible to procure in season to be of any use, and all the medicines, as nothing could be swallowed, we settled on two prescriptions: the first, a band of straw as large as one's wrist, passed between the jaws and tied over the head, to be followed by tapping, in case the former failed to bring relief.

As soon as the band of straw was adjusted, two attendants worked vigorously at either side kneading the bowels just in front of the hips, and in some three or four minutes succeeded in relieving the heifer of several cubic feet of very bad breath, when she was ready to finish her supper, apparently as well as ever.

This was undoubtedly a case of thoracic choking, the apple being lodged in that part of the gullet which lies within the chest, and beyond the point where it could be felt or moved by the hand. In all previous cases of choking coming within our observation, the obstructions have been in the throat or neck, and have been readily removed by a little rapid exercise or a drench of warm soap suds.

Prof. Law, in his "Veterinary Adviser," recommends, instead of the band of straw, a billet of wood large enough to hold the jaws well apart, each end being confined by a small cord passing over the back of the neck. This will effectually keep the mouth open and prevent the animal from sucking in and swallowing more air, and at the same time, if the head is held well up, will tend to allow the upward passage of the gas which is causing the bloat and pain.

Similar cases of choking and bloat have occasionally occurred in our herd, all of which have been relieved with little difficulty, either by giving a drench of warm soap suds or by using the gag in the mouth, accompanied by vigorous rubbing of the sides. In cases of longer standing previous to discovery, it might be necessary to puncture the side with a small knife to let out the accumulated gas; but this is always attended with some risk, and should be attempted only as a last resort.

If every farmer would spend five or ten dollars in the purchase of books treating upon the diseases of animals, he would have something to refer to at the moment when most needed, and in nine cases out of ten would save many times the cost of the books.—*New England Farmer.*

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The removal of the restrictions on the importation of live stock into Australia apply only to Great Britain, the United States and Canada. The importation of stock from other countries is still forbidden.

# The Horse.

## The Horse's Gaits.

The action of all horses should convey the impression of ample reserve of energy, *i. e.*, of endurance with activity—a power inherited in the majority of examples, but capable of increase after by stable management. A shuffling walker is a source of daily annoyance. Check it if the habit is not of long standing. Rein up and begin the pace again. If the lift is exaggerated, the chances are he will speedily cut; if insufficient, it allows no room for the sweep and is unsafe. If thereafter the horse makes the sweep well forward, with an inclination up, deviating neither to the left nor right, and ultimately bringing his foot down to the ground firmly, he is master of his action. He must plant his foot evenly and firmly for safety on the ground, with no undue inclination on either quarter of the foot. When a horse is both symmetrical and well poised, he ought to be clever in his paces; if otherwise, blame the horse-breaker for his impatience or mismanagement. Do not buy if the walk is unsafe.

The trot.—To bring a trotter out demands very careful preparation. Condition, on which we adjudicate, by handling the firm neck and the deep, firm flesh, not fat alone; the ribs, associated with a bright coat, clear eye, full wind—thus alone can excessive fatigue be endured without detriment, and it is arrived at by example and judicious feeding, exercise and thorough grooming, watering *ad libitum* at night, but sparingly through the day. The character of the trot is either high, low, round or straight, at times accompanied by dishing in the former and darting in the latter instance, or it may be classified as grand, fair, average or mediocre action, dependent on style and energy. Most horses cross their action, *e. g.*, wide behind, with close fore action, or *vice versa*. Few both meet and leave the buyer truly. He may be in at his elbows and open at his hocks, a form essentially liable to speedy cut. Undoubtedly action should have liberty, be level and straight to be valuable. Cramped action, nine cases out of ten, is the effect of disease or malformation. Fore and hind legs must act in harmony, hocks brought well forward under the belly, and fore feet lifted rapidly and lightly away.

High action is tiring, but very saleable; unless, however, accompanied with power in the hind quarters, it is disappointing, for the horse cannot leave the buyer well; as Mr. P. puts it, he drags his feet "as a duck in water"—a first-rate simile. No horse showing the number of nails he possesses in his hind shoes, but is at best both slow and weak behind. Defects in action are rolling, dishing, cutting, crossing the legs, stumbling, knuckling, darting or pitching, which needs only a reference to be shunned. Easy gait, security and precision are the cardinal features of a grand trotter. Mr. Thompson says "foreign horses exhibit exaggerated action in the lift, immense energy in their fore action, but they dwell unduly in the stay, and throw their feet about regardless of our notions of collected action, turning their toes out, and displaying their hind action in inverse to their fore." Verdict—weak in the extreme.

There is nothing to come up to true, all round action. Turning toes "in or out" is a defect. The former, which most English horses do, is the less objectionable for safety, but to my eyes the most ungainly of the two. To sum up, the general purpose horse, to ride and drive—a well-bred hack—should have free, supple shoulder action, short pasterns, with a full quantum of mobility, perfect flection in his hocks, energy and cover in his stride; he should be rather compact than lengthy in his outline, combining precision, truth and security in his fore and hind action, and possessing energy, endurance, an agreeable courage and a total absence of vice.—*English Agricultural Gazette.*

## Origin of the Canadian Horse.

I have occasionally seen it asserted in our agricultural papers that the Canadian is a Norman, reduced by scantier food, colder climate, etc. Now, this I think physically impossible, as a reduction of size in this way, I am confident, would produce a long-legged, slab-sided, stumbling brute, very different from the compact, hardy, fine-formed little Canadian, as he has existed there as far as the memory of man, still maintaining his ground in considerable numbers, notwithstanding the numerous crosses in late years of larger English horses. When I was in Quebec in 1852, I saw a very fine light or dappled gray stallion, much in the style of Mr. Dunham's "Success," except he was finer in his points. He was about fourteen hands high, possibly not over thirteen and a half hands—a real beauty, with fine action, etc. In Paris, in 1867, I saw the exact counterpart of this stallion; also, other equally small horses of same style, though not so fine. Now, I have no doubt that when the French first settled in Canada this was the sort of horse they imported, and have continued to breed and own to the present day. Ships, or rather brigantines, in those days were too small, I presume, to bring over seventeen or eighteen-hand horses, weighing eighteen hundred to two thousand pounds, as some of the Western and Scotch Canadian breeders boast of importing now. —*Letter to Live Stock Journal.*

## The Best Stallion.

Never select a horse simply because he has a high-sounding, fashionable name, with a corresponding pedigree attached. It is astonishing how many Fearnaughts and Abdallahs and Morrils and Hambletonians there are. Perhaps the last-mentioned name is abused most. All over New England and the country, you will find Hambletonian this and Hambletonian that advertised to the breeding public, that are not worth, for stock purposes, the bedding they stand on. Big-headed, big-legged, butt-ended things, they point the satire on human credulity that could be persuaded into breeding even a third-rate mare to them. The fact is, the Hambletonian family, great and worthy of patronage as it is, is worthy of patronage only in case of its finest representatives.

It can do no harm to reiterate the truism that a pedigree does not make a horse; and that a string of noble names is of no account in breeding, unless a noble animal stands at the end of it. Look at the horse before you pay any attention to its pedigree. A wise man might have a fool for a son; and a great horse improperly crossed will often get a foal in no sense worthy of him. Those who expect that, because a stallion happens to be a half-brother to Dexter, he will necessarily get colts that will grow up to rival Dexter represent in their mental structure a most unhappy cross themselves. The rule is that the foal will resemble the immediate parents; the exception is that he will resemble the remote ancestor; and those who breed to a poor specimen of a family, expecting that the colt will be like the founder of the family, and not like the immediate sire, are breeding in the face and eyes of this prime maxim.

Select a stallion short in the upper line, and long in the lower line, strongly coupled over the hips, and the distance between the hip bones and the spine bone swelling with ridges and masses of muscle that you can see play and work like great pulleys when taking their exercise, and you will get colts from him that will stride far, and gather like lightning. As to the height and size, the perfect horse in these respects is one that stands fifteen hands and two inches high (sixty-two inches), and weighs ten hundred and fifty pounds. This is the standard of perfection; an inch either way in height, or fifty pounds in weight, is allowable; but for speed and endurance, for the purposes of general driving and for the track, and, therefore, for the purposes of breeding, no stallion should weigh less than a thousand, or more than eleven hundred pounds; neither should he stand higher than sixty-three inches, nor lower than sixty. It used to be thought that for the purposes of the track, and in order to be good weight-pullers, large-sized horses were indispensable; but when men saw Flora Temple, barely tipping eight hundreds pounds, pull the same weight as Geo. N. Patchen, and get her nose in at the wire a little quicker than he could, heat after heat, they had to go back on their favorite theory. Theory and speculation are excellent in their places and way; but they are useless when put over against the logic of facts.

## To Our Subscribers.

For the convenience of our readers we incorporate our Exhibition issue with the October number.

## Raw-hide Horse Shoes.

A method of shoeing horses with raw-hide has long been in use on the plains, and found so serviceable and convenient that it might doubtless be found useful in many places where there are long periods of hot weather. There are also cases frequently occurring, in which disease of the feet might at least be alleviated by the temporary use of shoes cut from raw-hide or properly prepared sole leather. With these, that portion of the foot which needs the most precaution, viz., the crust or walls of the hoof where it meets the sole, will be perserved from contact with hard or rough surfaces; while the frog, generally too much protected, will reach the ground and become subjected to healthful action. For farm work, upon smooth soils free from stones or gravel, this kind of shoe will be useful during the summer season. A simple strip of raw-hide or sole leather, well filled with hot pine tar to make it hard and waterproof, will be sufficient for general use. A more durable shoe may be made of two or more thicknesses fastened together by copper rivets.

## Scratches in Horses.

The *Turf, Field and Farm* recommends the following treatment:—Prepare and give a purge, seeing that it acts thoroughly; then wash the parts with warm water and castile soap; carefully remove the scabs and other hard substances, then take equal parts of acetate of lead and olive oil, mix and apply twice a day for a week, gently rubbing each application in with the fingers: afterwards use once a day veterinary cosmaline. As soon as the animal has done purging, take arsenious acid four drachms, carbonate of soda two ounces, water one quart; mix and boil over a slow fire till the acid is dissolved, then cool and strain. Give half an ounce of the solution once a day for a week, then twice a day for a long time. It may require six months before a cure is permanently effected. Never require the animal to go faster than a jog, and not from a walk for the first thirty days.

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J. P., Florence, asks:—"Is it now about time to make cider? and our people would like a good receipt for keeping it."

[There are many plans used for keeping cider from souring, but all of them spoil the flavor. Cider may be kept in good condition by using care to keep every utensil clean, and to prevent access of the air to it. It should be filtered through sand in a conical flannel bag, and put into a clean and fresh whisky or alcohol cask and then bunged up closely. A vent-hole may be made for the escape of any gas which may gather in the cask for a few days, when that may be permanently closed. If germs of decomposition are caried into the cider by using decayed or damaged apples, nothing will keep the cider good for any length of time. The apples must be good and sound or the cider will be unsound. Put in a barrel one pound of mustard seed. It will improve it.]

D. J. C., writes:—"I have a field of corn which is badly smutted; I have tried to cut it out, but it is in the stalk from root to top. Will cattle be injured by feeding on these stalks? Will wheat be likely to smut if sown on this same land? If so, what crop would be best to follow? The land is in good condition."

[The smut is very injurious to cattle, and it would be better and safer to burn the infected stalks than to use them for fodder. If wheat is sown upon the same ground it will probably be infected. It would be better to sow oats, which is not so subject to this parasite. Smut is frequent in wet, warm seasons, and as the spores or seed of the parasite are everywhere floating about, it is impossible to prevent its appearance to some extent.]

SIR,—I wish to inform you that I received the winter rye last fall all right, and sowed it on the 10th day of October, and it was up in four days. I cut it about the last week of July, and from twelve pounds which I received from you, I have taken out five bushels of clean grain. It was seven and a half feet high, and a prettier piece of grain was never seen here by the oldest inhabitant; even gentlemen from abroad say that neither in England, Ireland nor Scotland did they ever see better, and they came far and near to see it. A few stalks were in a store in Dartmouth for a show, and they would not believe that it grew in this country. With thanks for the care and trouble of sending it, I remain yours truly, E. S. T.

Eden Bank, Dartmouth, N. S., Sept. 23, 1878.

# Stock.

## Green Food for Cows.

A reader at Toms River, N. J., writes to know what is the best plant to grow for very early and very late feed for milch cows. We should pronounce winter rye the very best crop to grow for early feeding, and barley the best of anything we have tried for late feeding. Beets, cabbages and turnips make good feed for October and November, when they can be used without injuring the flavor of the milk. Cabbages and turnips stand considerable freezing without being seriously injured, but it is a little difficult, oftentimes, to feed them to butter cows, on account of the odor imparted to the milk. Barley is an excellent forage crop to be fed green or dry, at any time of the year when it can be obtained. It has been used very extensively for cattle food in California and other countries not specially adapted to the growth of hay and pasture grass, but, until recently, it has received very little attention from New England farmers as a soiling crop. We have grown it but one year previous to the present season, and cannot speak of it with the confidence that we can of oats, rye and millet, yet we believe it will prove a valuable crop when rightly managed. It grows in a little less time than oats, while it seems to be much less subject to damage by rust and blight. We sowed a field of it last spring very early, and it appeared to suffer more than oats from the long spell of cold weather in May. Barley is understood to like a little warmer weather than that required for oats, and, for this reason, will do better sown during the hot weather of July and early August than oats. It does not incline to tiller out as much as oats, and if it would stand up, would bear pretty thick seeding, but from our short experience, we are inclined to think that, if sown very thickly, it would lodge and rot on rich land.

We have sown three bushels to the acre the present summer. The seed is low at this time in market, that which is suitable for growing fodder being offered for about seventy-five cents per bushel at the regular grain stores. The seed dealers who have a clean, choice article ask a little more.

Since farmers are thinking so much of growing green crops for cows, there is an increasing inquiry about the best plants for very early and very late feeding. Corn and millet are excellent fodder crops, but they are only in condition for feeding green during the late summer months. Early or late frost will kill both. We occasionally see rye criticised as a soiling crop. A writer for the *New York Tribune* lately asserted that green rye injured the milk of his herd, and, also, as he believed, caused serious loss from abortion. Judging from our own practice for a long term of years, we should say that the gentleman was entirely mistaken. We think we have made good butter from green rye, and with no other food except grain, and we have never heard a hint to the contrary from any of our customers; and as to its causing abortion, we should fear it no more than we should fear a good blue grass pasture. Rye should be sown thickly, and cut while young and tender, in order to obtain the best results. Four bushels of seed per acre, on rich, mellow soil, adapted to the crop, will give a burden well worth harvesting, before the heads come in sight, while if but one bushel is sown, the crop might seem hardly worth cutting before it comes into bloom.

We well remember when dairy cows on most farms received no feed from May to November, except what they obtained from pastures, and by after-feeding the mowing fields, but, since it has been proved that cows can live well and give an abundant yield of milk from green corn, most good farmers raise a patch of it every year to feed during the dry weather, which is generally expected in August, and to take the place of the after-feed of the mowings, which it is found had better be mown and cured for hay, or left on the ground for the benefit of the next year's crop. As the subject of soiling cows becomes better understood, it is probable that other crops than those now grown will be introduced and their value determined. Winter wheat sown in September will make an excellent feed to follow winter rye, and spring wheat sown in July or the first of August may yet be found equal or superior to barley. The cost of seed has been against the use of wheat for soiling, but were the demand greater there would, undoubtedly, be a supply at reasonable prices.—*New England Farmer.*

## Tethering Cows.

In pasturing a flock of sheep, or a herd of cows, upon a heavy growth of fodder, of whatever kind, the whole field will be traversed the first day, and a considerable portion be greatly damaged; but by confining the sheep within hurdles, or by tethering cows, the rest of the field is neither trampled nor soiled, and nothing is wasted. The herbage is consumed only within the limits of the tether, the remainder is left to grow until required, and the portion pastured soon regains a fresh growth, and is evenly manured at the same time. By tethering we acquire all the advantages of a system of soiling, without the labor of cutting and carting of fodder, and of hauling the manure made in the yards—that is, if the droppings are evenly spread over the field as they should be, and not permitted to remain in patches. By the use of the tether-pin which we describe cows can be confined within proper limits without risk of winding up the chain on the pin. The swivel-ring upon the top turns as the chain is drawn around, and as the head is pressed down close to the ground there is nothing upon which the chain can wind. In using the tether, it is a good plan to advance the pin each time to a sufficient distance in a direct line, thus feeding off a strip through the field or plot of ground. When such a strip has been eaten down, begin again next to the first starting point. In this way the grass is eaten off regularly, and when the field has been all fed off it may be gone over again. Where a number of cows are tethered out, they may be ranged in a line and made to advance regularly through the field. If the herbage is dense and tall, a half-circle of twenty feet radius would be nearly sufficient for a cow for one day, so that the pin may be advanced the length of a twenty-foot chain only each day. A very near estimate may be made as follows: A crop that will produce 1½ tons of hay will cut six tons of green grass, which is equal to about a quarter of a pound to a square foot. A cow will consume 80 lbs. of fresh grass per day; hence 240 square ft. should supply a cow with one day's fodder, which is equal to a space of 20 feet long by 12 wide. In this way the space fed off may be accurately apportioned. If the grass is about half grown, twice 240 square feet would have to be allowed, in which case the pin should be moved ahead at noon each day, and so of other yields.

## The Food of Animals.

The kind of food, as well as its condition and properties, exercises a wonderful influence in keeping domesticated animals healthy. The most nutritious food is not the best or most economical under all circumstances, because the specific sought is not always the same; therefore we are compelled to give various substances in a mixed condition to produce the desired results. There is no doubt an advantage gained in the modern method of grinding grain and the mechanical division of all coarse substances into minute parts, which aids mastication as well as digestion; but this mode of preparing food may be carried to extremes, and the animals suffer in consequence.

Food in a green state is certainly more nutritious and natural than when dried, as in hay, grain or straw; but in cold climates we have to preserve food in this unnatural condition, and therefore artificial means are employed to restore what is lost in drying.

Grain is ground into meal or flour, and in this condition it is more readily assimilated than if fed when dry. Boiling or steaming of food is largely practiced for the purpose of making the coarser kinds soft, and facilitating their digestion. Fermentation, which may be regarded as a sort of cooking, is also another method of making food easy of digestion, and some writers claim that it adds to its nutritive qualities. We know that brewers' grains are extensively employed as food for animals, and they fatten quickly, and if proper care is given to cleanliness and ventilation of stables, remain quite healthy. There are certainly two sides to this question of cooking, steaming, cutting and grinding food for animals, both as to the welfare and health of the animals. When food of all kinds is cheap, the most profitable mode is to feed with as little preparation as possible; but in older portions of the country and in large cities there is a great saving by a thorough manipulation of all coarse substances used for this purpose.

Those who most strongly oppose the grinding or cooking of food for animals, urge that it is unnatural, and therefore must be injurious, forgetting that in domesticating animals they are placed under unnatural conditions. It is true that an animal's stomach requires a certain degree of extension and contraction in order to keep it in a healthy condition, and food that is too highly contracted, however nutritious, will not answer the purpose any more than very coarse unnutritious food.

In feeding any very nutritive food, a certain quantity of some bulky, coarse kind should be added, in order to expand the stomach as well as the intestines. Unless this is attended to, digestion will always be incomplete, no matter how healthy the animal may be, and for this reason we believe that all ground or cooked food should be given along with cut hay or straw. The concentrated portion will furnish the requisite nutrition, and the other gives the needed expansion to the stomach. Animals should always be fed at regular intervals, and the old maxim of "good food and a little at a time" is applicable in feeding all domesticated stock. It is also well to change the food occasionally as an appetizer, as well as to stimulate the digestive organs. As a rule, farmers neglect to supply their animals with a variety of food, and if they become unhealthy in consequence their owners seldom attribute it to neglect in furnishing proper food.—*N. Y. Sun.*

# Stock Notes.

The *Economist*, England, of September 7th, says:—"The imports of foreign live stock into the port of London last week amounted to 25,102 head. In the corresponding week of last year we received 23.534; in 1876, 26,718; in 1875, 25,385, in 1874, 19,521; and in 1873, 17,227. The arrivals at Liverpool, Southamton and Bristol, from American and Canadian ports during last week consisted of 1,464 head of cattle, 2,257 sheep, and 407 pigs. Although not animated the cattle trade has ruled steady. Supplies were tolerably good, but the quality was not altogether satisfactory. Business had rather more life in it, and quotations were firm, the tendency being against the buyer. The inquiry was most animated for the best breeds, which made 5c. 10d to 6s. per 8 lbs.

ARRIVAL OF LIVE CATTLE BY A SAILING VESSEL.—The Glenmorag, Captain Dawson, one of Messrs. Allan's fast clipper ships, arrived in the Mersey recently from Montreal, with a second pioneer shipment, comprising 60 head of choice Canadian fat cattle, consigned to Messrs. James Hall and Son, of Preeson's-row. All were landed in excellent condition. This venture having proved successful, other clipper ships are expected shortly with larger consignments. It is worth mentioning that these cattle improved greatly while in transit. —*Liverpool Post.*

CANADIAN PRIZE WINNERS.—Among the Canadians who took prizes at the Michigan State Fair last week we observe the following:—Berkshires—Boar, two years old or over, second to A. A. McArthur, of Lobo, Ontario. Boars, one year old, first to McArthur. Sow, one year old, first prize to McArthur. Best boar, of any age, only one premium given, and that to McArthur. Essex—Best pen of pigs, first prize to Smith, second to W. Bedford, Colchester. Jersey cattle, second prize to Wright & Butterfield, Sandwich. Poultry, three prizes to W. & J. Clark, Sandwich.

A SUCCESSFUL BREEDER.—The young bull calf "Cavalier," bred by Mr. Richard Gibson, of Ilderton, Ontario, and which was exhibited by the Bow Park Shorthorn Association at the Northern Ohio Fair at Cleveland last week, took the first prize in his class, heading the young herd and carrying off all the honors of the Fair. Mr. Gibson sold 'Cavalier" to the Bow Park Association the week revious to the Fair.

Mr. D. W. Watrous, New York, has sold to the Board of Agriculture of Nova Scotia the Jersey bull Bon Hampton of Hillcrest 3240, and heifers Oriole of Hillcrest 7276 and Golden Doublet 7199, A. J. C. C. H. R.

Messrs. Jardine & Sons, Hamilton, Ont., have sold to Wm. Crozier, Northport, N. Y., the yearling Ayrshire bull Robert Mars, which took the first prize in his class at the Elmira (N. Y.) Fair.

# The Apiary.

## Bee Notes.

In most localities all surplus honey-boxes should be removed from the hive before this date. The practice of leaving boxes upon the hive until late in the season should be avoided, as they become soiled by so doing. All unfilled boxes should be removed as soon as the yield of honey is over, and packed away for the following season's use. Combs containing honey in partly-filled boxes may be taken out and the honey drawn from them with the extractor, and the combs used for guides in boxes next season. If single-comb boxes are used, the honey may be extracted without removing the combs.

MARKETING HONEY.—Where but a small amount of surplus honey is secured, it is usually best to dispose of it at a home market. It requires less attention in packing, and, as a rule, will bring a better price. Large quantities will necessarily be shipped to a city market. The provision of a proper package for transportation is essential. For box honey the shipping-case should hold from 10 to 25 pounds, and may be neatly made as follows: The size will depend upon that of the boxes to be packed; basswood lumber is most suitable; cut two pieces, $\frac{3}{4}$ or $\frac{7}{8}$ in. thick, of proper dimensions, for the ends. At equal distances from the ends, and about 1 in. from one edge, cut a hole $\frac{1}{2}$ in. deep for a handle. A top and bottom, and four strips $1\frac{1}{4}$ wide and of $\frac{1}{4}$ or $\frac{1}{2}$ in. thickness, according to the size of the grate, constitute the remaining material of the case. Nail together. Before packing, boxes should be nicely cleaned from propolis, and care taken in every way to place the honey in market in a neat and attractive package. The boxes which each case is to hold should be placed upon the scales and weighed before packing. With a little care in selecting boxes, fractions of pounds in a case may be avoided, which is desirable. The net weight should be neatly marked on the case.

EXTRACTED HONEY.—The quantity of liquid honey placed upon the market is increasing each season, and finds ready sale in nearly every style of package, from jelly cups to casks holding 500 lbs. If fruit cans are used, let them be of some standard make, and pack them in crates of twelve each. Each can should have an attractive label, indicating the quality of the honey. For the past few seasons we have shipped largely in tin cans, holding 10, 15 and 20 lbs. At present the demand is for casks, or firkins, holding from 150 to 200 lbs. Such casks should be well made, and bound with wooden hoops, which should be nailed in place, and the casks well coated with bees-wax inside before filling. To do this they should be allowed to stand in the sun until they are quite warm. The wax should be applied quite hot. Pour a quart into a cask, and cork up tight; then roll and turn it until every spot is touched, when the unused wax may be poured out. The warmer the cask, the hotter the wax, and the quicker the work, the less wax will be required. Avoid filling the casks too full with cold honey, for if allowed to stand in a warm place, the honey will expand and cause the casks to leak.

PREPARATIONS FOR WINTER.—All openings at the top of the hive should be closed, so as to keep the interior warm, which will tend to continue breeding later in the season, and thus aid in securing a larger number of young bees for winter. Combs of honey from the heaviest hives may be changed for light ones in less prosperous colonies, and each thus have a sufficient quantity of food for winter. Each hive should contain about 25 lbs. of honey. Avoid exposing honey, whereby robbing may be induced. Where few hives are kept, the different operations may be performed morning and evening, when the bees are flying less freely, and robbing will be less likely to occur.—*L. C. R., in Am. Agriculturist.*

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We have a copy of the FARMER'S ADVOCATE before us on the table. In looking over its pages we are struck with wonder at the fund of valuable information it contains, and involuntary ask how many of our Eldom, Mariposa or Thorah farmers subscribe for this to them most valuable of magazines. The FARMER'S ADVOCATE is published in London, Ont., by Wm. Weld. It is a monthly at $1 a year, or 10 cents per single number. Each number is a treasure in itself to the farmer, and when bound will make a volume invaluable.—*Woodville (Ont.) Advocate.*

# Poultry Yard.

## Advice for the Season.

We take the following from the editorial columns of the *American Poultry Yard*:—

MILK FOR FATTENING FOWLS.

What a different taste a fine, nicely and quickly fattened fowl has, when served on the table, compared to one which has been forced to scratch for all its living, and then is consigned to the spit in anything but a fit condition for food. Farmers realize the importance of fattening quickly, when feeding beeves for the butcher, yet many do not seem to realize the fact that what holds good with that kind of meat is equally true when applied to fowls. Tenderness and juiciness are results of fattening quickly, while mere ordinary flavor and want of tenderness result from letting fowls run until wanted for use on the table.

To enable one to fatten fowls or chicks quickly, it is absolutely necessary to give such food as will accomplish the purpose best, and to this end we unhesitatingly recommend plenty of milk in any state, from fresh to thick. This should be fed in connection with a grain diet, for one counteracts any possible deleterious influence of the other. If kept in a darkened place and fed unsparingly on milk, with grain in proper proportions, you will soon have something very choice to offer up on your tables to your friends, as well as to your family. When milk is fed, no water is required for fattening fowls.

EXAMINE THE COMBS.

It is the easiest thing in the world—*when you know how 'tis done*—to tell when your fowls are in ill-health, even in the incipient stages of any disease or ailment, if you but examine your flock carefully. The comb of each fowl is a true index to the working of its system. If they be in ill-health, the comb will lose color, and become far less firm in texture; as the malady increases, the color decreases, till a very sick bird will show a comb almost devoid of scarlet, being of a livid, dull crimson, or else pale or ashy in appearance. If the cholera, or any other disease, should come into the flock, carefully examine the combs of each bird, morning and night, and all those which are wanting in that bright, rich color which denotes perfect health, remove at once from the flock to a place remote, where they should at once be put under medical treatment.

The comb of a fowl is an honest index of the true inwardness, and should be daily consulted by the fancier who values the health and well-being of his flock. Look at the comb of a laying hen or pullet! She is in the height of health and strength, and carries her unfailing sign of healthfulness on her head, in the shape of a blood red, bright and full comb. A vigorous cock or cockerel will carry the same sign, though not, perhaps, in so eminent a degree as his harem.

TO WOULD-BE BUYERS

We would say prepare to buy early in the shipping season, for you will then have a larger and better lot of birds to select from than if you left your purchase until the winter or spring, by which time most breeders have their surplus birds disposed of, or at least the best of those they intend to sell. Buyers save something in the feed bill by buying their birds late in the season, instead of early in the fall, for they do not have to feed them so long, but this saving does not count for much, as the prices of the birds are correspondingly higher, while the quality is generally inferior. Breeders like to dispose of their surplus stock early, so as to get their flocks in shape for the following year's breeding, and to do this they are willing to make a concession in prices, and buyers should not be slow to see and take advantage of this reduction. Before viewing the thing carefully, we thought we were making a considerable thing of it by putting off our intended purchases until late in the spring, but a little experience soon taught us the fallacy of such a method. We therefore advise our patrons and readers to adopt the fall purchasing, for it is alike best for buyer and breeder. The breeder can then give better care and attention to those birds which are left, which he could not do when he had large flocks of young chicks of different sizes and ages running around claiming his time and attention.

# Veterinary.

## Abortion in Cows.

The following is an extract from the *Western Stock Journal*:—

At the present time abortion is drawing the attention of stock breeders, and although in other parts of the country committees have been appointed to investigate its causes, yet so far all attempts to reach anything definite regarding the matter have proved futile, for the causes are seemingly so various and diverse that at best but a general outline of them, with suggestions as to its prevention and cure, can at present be given, leaving each of our readers to carefully consider these causes and, if possible, adopt a remedy for each particular case.

The causes are numerous, the principal of which are mechanical injuries, such as slips, blows, falling on fences, ice, &c., inflammation of the bowels, indigestion, diarrhœa, plethorea, *i. e.*, high bodily condition; breeding too young, irritating poisonous food, over-feeding; hot, ill-ventilated barns—especially the basement stories—damp, musty food, want of proper exercise, decomposing animal matters—especially the afterbirth of a previous abortion—proximity to slaughter houses, butchering pens, impure water, ergotized grains, grasses and hay, smut of maize, &c., &c.

Abortion generally occurs between the fourth and seventh months of the period of gestation, usually occurring about the sixth or seventh month.

The symptoms are a whitish muco-purulent discharge from the vulva, springing of milk with a weak flaccid condition of the external generative organs.

*Treatment.*—Remove any and every cause that exist. If the animals have been highly fed, give a sparer diet, with more outdoor exercise. Drain and properly, but thoroughly, ventilate the stables. Remove at once the afterbirth, and thoroughly disinfect the premises by sprinkling with a dilute solution of carbolic acid, or with chloride of lime. Whitewash the stables, and keep everything scrupulously clean. Separate the affected or suspicious animals from the herd, and keep them entirely isolated from the others. Avoid any sudden changes of diet, as from the dry food of winter to one of a more laxative nature, as the juicy, succulent grasses of spring, for any sudden change is liable to produce severe purgation, which, with other causes that may be present, will strongly tend to influence an abortion.

When the herd is attacked, give one-half ounce doses of chlorate of potash daily, dissolved in water. If the animals are in an emaciated condition, a course of tonics is indicated, and the following may be given in their feed twice daily.—

| | | |
|---|---|---|
| Sulphate of Iron | 2 drams, | Troy. |
| Powdered Gentian | 1 " | " |
| Powdered Ginger | ½ " | " |

If constipation exists, give mild laxatives.

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## A Hint for Canada.

The milling industry of this country is said to rank next to that of iron. The number of mills is over 25,000, affording employment for over 600,000 men, whose annual wages are about $20,000,000, and turning out yearly about 50,000,000 barrels of flour, of which 4,000,000 are exported to foreign countries.—*Am. paper.*

The late rapid growth of the steel manufacture in the United States is shown by the following figures.—In 1873, 129,000 tons of steel rails were made; in 1877, 420,000 tons; this year the estimated production is 500,000. In all other grades of steel goods and the product of steel there is a steady advance.

The Dominion may, in the good time coming, boast of her progress in industrial pursuits.

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THE FARMER'S ADVOCATE.—It is gratifying to see that with the improvement and growth of this country, and the growing wealth of our farmers, agricultural journals are being more liberally supported. None of these deserves more encouragement than the FARMER'S ADVOCATE, which is published in London by Mr. Wm. Weld. It is a Canadian enterprise, is admirably conducted, and should be in the house of every Canadian farmer. The contents are particularly varied, interesting and valuable.—*Woodstock Sentinel.*


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.

## Manitoba!

SIR,—Would you oblige me with space for a few lines in one of your columns for a few words relating to some facts about Manitoba and the North-west. There is a far better country in the North-west than there is in Manitoba. In fact, I believe there is as good in parts of Ontario as there is in either. There is more waste land in Ontario than there is in Manitoba and the North-west. The farmers of this part said it would make some of the Ontario farmers stare to see a hundred-acre field of wheat growing. There are a good many of them here, but they cannot raise such crops as they talk about. There are very few farmers that get over twenty bushels of wheat to an acre, and it is worth forty to seventy-five cents per bushel. Some of them have to draw it from one to two hundred miles to get that price; so the farmers of Ontario can judge what it costs to haul grain to market where twenty bushels of wheat would be a big load for a span of heavy horses. It is dangerous to stir out here in the winter at all, the storms get up so quick; and in some of these storms persons being only three or four acres from their dwelling-place could not reach it, and probably never would reach it alive if caught in a very bad storm. I don't know much if a small average and a big price is not better than a large average and a very, very low price. Besides, there is far more comfort in Ontario than there is in this part. People of this country say there nothing to do in the winter at all; but there is plenty to be done if they were not afraid to stir out; but it is so dangerous to go out they prefer stopping in the house. Farmers that have to draw their building timber twenty and twenty-five miles, also their wood and fence timber, would find something to do in the winter if they were not afraid to put out their nose. There has been a great deal of false printing done in the papers about this country. There has been a great number deceived in it, thinking they could start with a small capital, and they have been badly deceived. A man to start farming in this country wants at least $1,000. He need not depend on making anything by working out, for if a laboring man keeps himself clear in this country he does very well. A person to read the Manitoba *Free Press* would think it was increasing about ten times as fast as it is. Farmers, don't mind what the papers say, but if you have a notion of coming to Manitoba, come and see it before selling out your places, and if you have a comfortable place in Ontario I am sure you will be satisfied to go back and live on it. But there are plenty of farmers in Ontario that have mortgages on their places and cannot redeem them. It is the best thing they can do to try their luck in some other place; but, friends, bear in mind that Manitoba is a very bad place for a man to come to without money enough to start farming, and then he won't make anything for two or three years. Friends of Ontario, if you are comfortable there, my advice would be for you to stop there and not remove to Manitoba. W. S.

[All cannot be satisfied in any place, and no doubt Manitoba has some drawbacks. This, we are glad to say, is not the general opinion of settlers. No doubt it will meet with a response from other of our readers in that part of the Dominion. We wish to publish facts about the country that will give our readers correct opinions in regard to that vast territory.]

## How to Keep Apples in Flavor.

SIR,—"M. B. C., Walkerton," seems in trouble about keeping apples for late winter and spring use. I have tried several ways to keep them, but to have an apple in the spring with that delicious flavor that a summer or fall apple has that hangs on the tree till perfectly mellow, is one of the most difficult points I have ever tried to make. However, here is my plan, which has come the nearest to it of any that I have ever known:—Lay them away in dry forest leaves (or any leaves that are dry like them when gathered in October or November), having the barrel or box dry (some kind of hard wood is better to make the boxes of than pine, for apples will take on a bad flavor almost as quick as butter); lay a layer of leaves and a layer of apples till you fill the box or barrel, having leaves enough to keep the layers of apples apart. Cover the box or head up the barrel tight, and you may leave them in the barn or any out-building all winter, if you choose, only do not open them to the air in freezing weather. If they are put in a cellar, so as not to freeze, the temperature should be low, or they will mature too soon.

I kept Tallman Sweets last winter in this way, in an out-building. When the warm weather came in March I opened them, took out all affected ones, and laid the sound ones back in the leaves, and I had most delicious apples till June.

E. T. M., Vienna, Ont.

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SIR,—I planted a small piece of sorghum this season for the purpose of trying to make syrup from the stalks, but now that I have it from 9 to 10 ft. high and in bloom, I am at a loss when to cut it. I am well satisfied with its feeding qualities for stock, but want to try it for syrup. When should it be cut and how should it be pressed?

J. A. T., Blessington, Ont.

[It should be cut before it hardens its seed. Mr. C. W. Wellington has a press made for pressing it; write him for full particulars.]

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SIR,—The threshing machines are making their annual rounds, and the result is better for them than for the farmers, as the length, and, in many places, the dampness of the straw, render the time required to thresh out the contents of the barns longer than usual. For the most part, throughout the county of Grey the fall wheat has turned out well, but the spring wheat has proved a failure, except here and there, where, owing to local circumstances, the seed was sown early—say in March. Some farmers who trusted solely to the Glasgow wheat will not have their bread-corn for the winter. One farmer of my acquaintance, finding the crop not worth cutting, let it alone, intending to plow it in this fall, and thereby restore to the land the plant-food taken from it. The other varieties sown in this part of the country are principally Red Chaff and Genessee; of the two the Genessee has yielded the best, the Red Chaff being seriously injured by the midge. The Clawson has stood better than any other winter wheat in this locality.

Turnips have been eaten up by the grasshoppers. Slugs are unusually numerous; our early cabbages and celery were destroyed by them, and salt, whether applied dry or in the shape of strong pickle, had no effect on them. If windfalls (apples or pears) are allowed to remain on the ground over night, they are found covered with slugs the next morning. One farmer, I am told, had every green thing in his garden destroyed by them. We have had no potato blight in this part of the country that I am aware of. The potato beetles were as numerous as ever. The crop is likely to be a fair one if we are favored with fine weather to save it.

SARAWAK.

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SIR,—I have gained a great deal of information through the Farmer's Advocate, some of which I know cannot be paid for in gold. I have great faith in your motto, "Persevere and Succeed." I have remarked that you always redeem your promises, for I have noticed some improvements every year in your paper; and I think you mean to keep up with the times.

At first I could not see the necessity of paying big prices for good animals, but what I monthly saw in your paper caused me to consider the matter, and I am now convinced that much of success in farming depends upon it. I have found that improved animals, like improved vegetables, are less hardy, which is a great drawback requiring more and constant care and attention, but, notwithstanding all this, I know the profit lies in the improved breed

I bought one pound of Burbank's Seedling potatoes a year ago last spring, and I raised two bushels from them the first crop, and I feel satisfied I can do still better with them.

CLEOPHAS S. DIT BLONDIN, Penetanguishene.

## Canadian Implements in France.

PARIS, FRANCE, Aug. 26, 1878.

Dear Sir,—I have much pleasure to inform you that the Meadow Lark Reapers have not only given good satisfaction, but have already established their name in France. Your machines are the only ones that have taken the eyes of the agriculturist of all the Canadian machines on exhibition, and where they are now introduced are given the preference over all the other machines in use in the district.

Yours truly,
M. KORMANN, Commissaire, etc.

[John Elliott conducts the largest agricultural implement manufactory in London, Ont. He is developing a trade in Germany and France that promises to be of advantage to our country. In reapers and mowers alone he has already sent out 700 from his works the present season. His implements have a good reputation at home, and are gaining the highest awards in other countries.]

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Oshawa, Sept. 9th, 1878.

SIR, — Of the phosphate you will please send me another ton as soon as possible, as I wish to use it on fall wheat at the rate of a ton for four acres, leaving four acres without any, so that I will be able to note the difference. My experience of the result of the phosphate I purchased from P. R. Lamb & Co. last spring has been very satisfactory. The turnips and carrots are not yet harvested. On the potatoes it more than doubled the yield, and gave a nicer sample. On wheat I got fifty-eight bushels from one sown. Some of the heads were six inches long and well filled out. I drilled in the wheat and hoed it, using about eight hundred pounds of phosphate to the acre. About fifteen bushels from one sown is all the land produced without the phosphate. On mangel wurtzels it increased the size more than double the roots growing in adjoining rows without the phosphate. The turnip crop is not far enough advanced to give any report. On fodder corn it pushed forward the crop at a greater rate, some of the stocks now measuring nine feet in height. It was sown on the 10th of July, some being the small yellow, which seldom attain the height of nine feet—the amount of phosphate used being five hundred pounds per acre. On potatoes I used about four hundred pounds per acre, scattering by hand in the furrows before dropping the seed. I am well satisfied. The phosphate paid.

Yours, very truly, JOHN BARTLETT,
Oshawa, Ont.

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SIR,—We have finished our harvest, and most of the farmers about here are much disappointed, the spring wheat having almost proved a failure. I fear that it is only seven or eight bushels per acre. The Glasgow, in particular, is very poor; the Red Chaff has done better. I know two of my neighbors who sowed Redfern, and one who sowed 10 bushels has threshed 100.

But fall wheat has done well—from 20 to 35 bushels per acre. The kinds sown are Clawson and Treadwell. There will be a great deal of wheat sown this fall. Peas and oats have done well. Barley not much grown, and about half a crop. Potatoes are badly eaten by bugs; turnips promise well. Apples are a good crop; plums not half a crop; grapes are late, owing to spring frost.

D. S., Presquile, Ont.

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SIR, — I hear nothing nowadays of Carter's Ditching Machine. Has it failed to realize all that was expected of it? Recently some American dealers bought 48 horses at Richmond, prices running from $30 to $60. I think there are several hundred more that could be spared, and that without any loss to the country.

R. M. J. B., Dunville, P. Q.

[The ditching machines are not coming into operation as rapidly as was expected. Some have been used to advantage. Mr. Carter, of Aylmer, Ont., might furnish you with full particulars about them.]

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A. S., of Blair, says we recommend certain artificial fertilizers on wheat, but that they cost too much, and asks if it would be a good plan to sow plaster after the wheat is sown. We have advised the use of fertilizers, because, if used intelligently, they increase the crop more than enough to pay the extra cost, and thus are profitable. Plaster (which is a fertilizer) may frequently help the crop somewhat, but it contains only lime and sulphuric acid, and cannot supply nitrogen, phosphoric acid, and potash, which are generally most useful to wheat, particularly the first two. Plaster is, on very many soils, very beneficial to clover.

# Provincial Exhibition Prize List.

## CLASS I.

SPECIAL PREMIUMS.

The Council of the Association having received an offer of $500 from the citizens of Toronto, to be appropriated for special premiums, has accepted such offer, and added the sum of $500, making a total of $1,000, to be awarded in prizes as follows, viz. :—

Section 1—Thorough-bred Horses—1 stallion and 3 females, of any age; pedigrees to be prodnced; undecided.....$100
Section 2—Agricultural Horses, exclusive of pure Clydesdales or Suffolks—Stallion and 5 females, of any age, W Crawford, Malvin..... 100
Section 3—Heavy Draught Horses—Imported or bred from pure imported heavy draught stock on the side of both sire and dam, including Clydesdales and Suffolks, stallion and 5 females, of any age, Canada West Farm Stock Association, Brantford..... 100
Section 4—Durhams—1 bull, any age, and 6 females, 24 months and under, Canada West Farm Stock Association, Brantford..... 100
Section 5—Ayrshires—1 bull, any age, and 5 females, 24 months and under, Jardine & Sons, Saltfleet township..... 100
Section 6—Dairy Cows—Any breed for dairy purposes, 10 cows in milk, pure bred or crosses of distinct breeds, Jardine & Sons, Saltfleet township..... 100
Section 7—Ten Fat Steers—D F Stewart, Ailsa Craig.... 100
Section 8—Sheep—Cotswolds or other long-wools, 1 ram and 10 ewes, John Snell's Sons, Edmonton..... 100
Section 9—Sheep—Southdown, Oxford, Hampshire, or Shropshire Downs, 1 ram and 10 ewes, Daniel Perley, Paris..... 100
Section 10—Pigs—Berkshire or other black breed, 1 boar and 5 sows, John Snell's Sons..... 100

CLASS II—ROADSTER HORSES FOR DRIVING, OR THE SADDLE, 15½ HANDS AND UNDER.

Best stallion, 4 years old and upwards, Douglas & Wells, Aurora.....$40
2nd do, W Lutz, Hagerman..... 30
3rd do, Badgerow & Miller..... 20
Best stallion, 3 years old, W Hendrie, Hamilton..... 24
2nd do, Tatson & Fox, Guelph..... 18
3rd do, J Duggan, Leslieville..... 12
Best stallion, 2 years old, M Perdue..... 21
2nd do, G Merritt, Scotland..... 14
3rd do, J Carpenter, Whitby..... 7
Best yearling colt, Richard Graham, Pickering..... 10
2nd do, John Proctor, Nelson..... 7
3rd do, James Grey, Durham..... 4
Best stallion of any age, Douglas & Wells..... Diploma
Best 3 years old filly, J W Hornsby..... 18
2nd do, W Phanaler, Seaton village..... 11
3rd do, John Roach, Toronto..... 7
Best 2 years old filly, J W Hornsby..... 14
2nd do, W D Stoddard, Bradford..... 9
3rd do, R Davies, Toronto..... 5
Best yearling filly, John Roach..... 8
2nd do, Joe Rymal, Hamilton..... 6
3rd do, J W Hornsby..... 4
Best brood mare with foal by her side, F W Stone, Guelph 21
2nd do, J B Wilson, Oshawa..... 14
3rd do, J Addison, Malton..... 7
Best foal of 1878, J B Wilson..... 8
2nd do, F W Stone..... 6
3rd do, J Addison..... 4
Best pair matched horses (geldings or mares) in harness, Buchner & Bros, Port Colborne..... 20
2nd do, Mackie & Reid, Port Hope..... 15
3rd do, Jas Scanlon, Tattenham..... 10
Best single horse (gelding or mare) in harness, J Palmer, Richmond Hill..... 15
2nd do, H F Lucas, Toronto..... 12
3rd do, Douglas & Wells..... 8

CLASS III—CARRIAGE HORSES — ANIMALS 3 YEARS OLD AND UPWARDS, TO BE OVER 15½ HANDS.

Best stallion, 4 years old and upwards, John Leur, Maple..$40
2nd do, J Eby, New Hamburg..... 30
3rd do, J B Wilson, Oshawa..... 20
Best stallion, 3 years old, J Hartley, Zimmernan..... 24
2nd do, J Drinkwater, Alloa..... 18
3rd do, J L Baikey, Pickering..... 12
Best stallion, 2 years old, J B Walker, Stoney Creek..... 21
2nd do, R S Lighthart, Campbell's Cross..... 14
3rd do, W H Conant, Oshawa..... 7
Best yearling colt, M Howson, Georgetown..... 10
2nd do, D Campbell, Bradford..... 7
3rd do, Samuel Wilcox, Banda..... 4
Best stallion of any age, J Hartley..... Diploma
Best carriage filly, 3 years old, W H Aikins, Burnhamthorp 18
2nd do, A Z Palmer..... 11
3rd do, A K Langstaff, King..... 7
Best filly, 2 years old, J S Preston, Hornby..... 14
2nd do, George Stephenson, Constance..... 9
3rd do, J S Preston..... 5
Best yearling filly, J W Hornsby & Bro, Eminence, Ky, U. S..... 8
2nd do, W & J McCormack, Orono..... 6
3rd do, J S Preston, Hornby..... 4
Best brood mare with foal by her side, M Howson, Georgetown..... 21
2nd do, D Campbell, Bradford..... 14
3rd do, D Campbell, Bradford..... 7
Best foal of 1878, D Campbell, Bradford..... 8
2nd do, M Howson..... 6
3rd do, D Campbell..... 4
Best pair matched carriage horses (geldings or mares), Henry Hulse, Newmarket..... 15
2nd do, John Coyne, Drumquin..... 12
3rd do, Peter Fillman, Benton township..... 8
Best single carriage horse (gelding or mare), in harness, H M Baird, Toronto..... 15
2nd do, J Wakefield & Son, Richmond Hill..... 12
3rd do, J G Snider, Toronto..... 8

Best saddle horse (gelding or mare), not over 16 hands, H P Dwight, Toronto..... 15
2nd do, J H Mead, jr, Toronto..... 12
3rd do, A Z Palmer, Eastwood..... 8

CLASS VI—DURHAMS.

Best bull, 4 years old and upwards, Thomas Boak, Trafalgar.....$40
2nd do, W Spier, Brock..... 30
3rd do, J Gardhouse..... 20
Best bull, 3 years old, Canada West Farm Stock Association..... 40
2nd do, H Snell & Son, Clinton..... 30
3rd do, W G Pettit, Burlington..... 20
Best bull, 2 years old, J and R Hunter, Alma..... 40
2nd do, Jas Russell, Richmond Hill..... 30
3rd do, Thos Botham, York Mills..... 20
Best bull, 1 year old, J & W Watt, Salem..... 25
2nd do, J S Armstrong, Guelph..... 20
3rd do, J Davidson & Son, Balsam..... 15
Best bull calf, under one year, Canada West Farm Stock Asssociation..... 20
2nd do, J Davidson & Son..... 15
3rd do, J Dryden, Brooklin..... 10
Best bull of any age, J & R Hunter, Alma, Diploma.....
Best cow, James Russell..... 30
2nd do, Canada West Farm Stock Association..... 22
3rd do, Canada West Farm Stock Association..... 15
Best cow, three years old, J & W Watt, Salem..... 25
2nd do, J & W Watt, Salem..... 20
3rd do, J & R Hunter, Alma..... 15
Best heifer, 2 years old, James Russell..... 20
2nd do, Canada West Farm Stock Association..... 15
3rd do, James Russell..... 10
Best heifer, 1 year old, Canada West Farm Stock Asssociation..... 16
2nd do, J Davidson & Son..... 12
3rd do, J & W Watt..... 8
Best heifer calf (under one year), Canada West Farm Stock Associotion..... 16
2nd do, Canada West Farm Stock Association..... 12
3rd do, J Davidson & Son..... 8
Best five calves, under 1 year old, bred and owned by the exhibitor, Canada West Farm Stock Association..... 40
Best herd of Durham cattle, consisting of one bull and five females, of any age, owned by exhibitor, Canada West Farm Stock Association..... 50

## SHEEP—LONG-WOOLED.

CLASS XV.—COTSWOLDS.

Best ram, 2 shears and over, John Snell's Sons, Edmonton $22
2nd do, John Snell's Sons..... 17
3rd do, James Russell, Richmoud Hill..... 12
Best shearling ram, John Snell's Sons..... 22
2nd do, John Snell's Sons..... 17
3rd do, Joseph Ward, Marsh Hill..... 12
Best ram lamb, John Snell's Sons..... 17
2nd do, James Russell..... 14
3rd do, Arthur Johnson, Greenwood..... 12
4th do, John Snell's Sons..... 8
Best two ewes, 2 seears and over, John Snell's Sons..... 20
2nd do, John Snell's Sons..... 15
3rd, do, James Russell..... 10
Best two shearling ewes, James Russell..... 20
2nd do, James Russell..... 15
3rd do, John Snell's Sons..... 10
Best two ewe lambs, John C Ross, Jarvis..... 17
2nd do, James Russell..... 14
3rd do, John Snell's Sons..... 11
4th do, James Russell..... 8
Best pen of Cotswolds, 1 ram, 3 ewes, 2 shears and over, 3 shearling ewes, and 3 ewe lambs, John Snell's Sons....30

CLASS XVI.—LEICESTERS.

Best ram, 2 shears and over, H Snell & Son, Clinton.....$22
2nd do, C S Smith, Acton..... 17
3rd do, W Somers, Blanshard..... 12
Best shearling ram, W Whitelaw, Guelph..... 22
2nd do, W Somers..... 17
3rd do, John Kelly, Jr, Shakespeare..... 12
Best ram lamb, W Whitelaw..... 17
2nd do, Adam Oliver, Downie..... 14
3rd do, W Somers..... 11
4th do, John Scott, Lobo..... 8
Best two ewes, 2 shears and over, W Somers..... 20
2nd do, John Kelly, Jr..... 15
3rd do, W Somers..... 10
Best two shearling ewes, W Somers..... 20
2nd do, John Kelly, Jr..... 15
3rd do, W Somers..... 10
Best two ewe lambs, W Whitelaw..... 17
2nd do, W Whitelaw..... 14
3rd do, Adam Oliver..... 11
4th do, W Somers..... 8
Best pen of Leicesters—1 ram, 3 ewes, 2 shears and over, 3 shearling ewes, and 3 ewe lambs, W Somers..... 30

## SHEEP—MEDIUM-WOOLED.

CLASS XVIII—SOUTHDOWNS.

Best ram, two shears and over, H Spencer, Whitby.....$20
2nd do, D Perley, Paris..... 17
3rd do, T C Douglass, North Dumfries..... 12
Best shearling ram, H H Spencer..... 20
2nd do, D Perley..... 17
3rd do, Richard Rennelson, North Dumfries..... 12
Best ram lamb, D Perley..... 17
2nd do, Simon Lemon, King..... 14
3rd do, Simon Lemon..... 11
Best two ewes, two shears and over, T C Douglas..... 20
2nd do, H H Spencer..... 15
3rd do, F W Stone, Guelph..... 10
Best two shearling ewes, D Perley..... 20
2nd do, H H Spencer..... 15
3rd do, D Perley..... 10
Best two ewe lambs, D Perley..... 17
2nd do, D Perley..... 14
3rd do, H H Spencer..... 11
Best pen of Southdowns—1 ram, 3 ewes, 2 shears and over, 3 shearling ewes, and 3 ewe lambs, Daniel Perley..... 20

CLASS XIX—SHROPSHIRE, HAMPSHIRE, AND OXFORDSHIRE DOWNS.

Best shearling ram, H H Spencer.....$15
Best ram lamb, H H Spencer..... 8
Best two ewes, 2 shears and over, H H Spencer..... 15
Best two shearling ewes, H H Spencer..... 15

CLASS XX—FAT SHEEP.

Best two fat wethers, 2 shears and over, W Whitelaw, Guelph..... 12
2nd do, George Denoon, Etobicoke..... 8
3rd do, George Denoon, Etobicoke..... 4
Best two fat wethers, under 2 shears, George Denoon, Etobicoke..... 12
Best two fat ewes, 2 shears and over, Simon Lemon..... 12
2nd do, H and J Groff, Waterloo..... 8
3rd do, J Godson, King..... 4

## PIGS—SMALL BREEDS.

CLASS XXI—IMPROVED BERKSHIRES.

Best boar, over 2 years, John Snell's Sons.....$15
2nd do, David Carstairs, Harwood..... 10
3rd do, A A McArthur, Lobo..... 5
Best boar, over 1 year and under 2 years, John Snell's Sons 15
2nd do, John Roach, Toronto..... 10
3rd do, John Roach, Toronto..... 5
Best boar, over 6 months and under 12 months, A A McArthur..... 15
2nd do, John Snell's Sons..... 10
3rd do, J Hogan, King..... 5
Best boar, under 6 months, W J Rudd, Puslinch..... 12
2nd do, J T Peacock, Kincardine..... 8
3rd do, J T Peacock, Kincardine..... 4
Best sow, over 2 years, Canada West Farm Stock Association, Brantford..... 15
2nd do, John Snell's Sons..... 10
3rd do, John Snell's Sons..... 5
Best sow, over 1 year and under 2 years, C W F S Association..... 15
2nd do, John Snell's Sons..... 10
3rd do, John Roach..... 5
Best sow, over 6 months and under 12 months, A A McArthur..... 15
2nd do, John Snell's Sons..... 10
3rd do, John Hewer, Guelph..... 5
Best sow, under 6 months, W J Rudd..... 12
2nd do, A A McArthur..... 8
3rd do, W J Rudd..... 6
Sweepstakes prize for best improved Berkshire boar and 2 sows, of any age, Canada West Farm Stock Association 20

## LARGE BREEDS.

CLASS XXIV—YORKSHIRE AND OTHER LARGE BREEDS.

Best boar, over 2 years, Geo Weldrick, Thornhill.....$15
2nd do, Geo Weldrick, Thornhill..... 10
Best boar, over 1 year and under 2 years, J and R Leslie, Trafalgar..... 15
2nd do, Christopher Edmondson, Brantford..... 10
3rd do, Geo Weldrick..... 5
Best boar, over 6 months and under 12, Joseph Featherstone Toronto township..... 15
2nd do, Joseph Featherstone, Toronto township..... 10
3rd do, G Weldrick..... 5
Best boar, under 6 months, J and R Leslie, Trafalgar..... 12
2nd do, J Hewer..... 8
3rd do, J Featherstone..... 4
Best sow, over 2 years, J Hewer..... 15
2nd do, G Weldrick..... 10
Best sow, over 1 year and under 2, J and R Leslie..... 15
2nd do, J and R Leslie..... 10
Best sow, over 6 months and under 12, Jos Featherstone.. 15
Best sow, under 6 months, J and R Leslie..... 12
2nd do, J and R Leslie..... 8
3rd do, J Featherstone..... 4

CLASS XXVI—CHICKENS, DUCKS, ETC., 1878.

Best pair white dorkings, Thomas and Campbell, Brooklin $2
2nd do, John Bogue, London..... 1
Best pair dorkings, silver grey, W Bell, York township.... 2
2nd do, John Bogue..... 1
Best pair dorkings, colored, Thomas and Campbell..... 2
2nd do, W Bell..... 1
Best pair Polands, white, J L Douse..... 2
2nd do, W M Smith, Fairfield Plains..... 1
Best pair Polands, golden, J Bogue..... 2
2nd do, J Bogue..... 1
Best pair Polands, silver, John Bogue..... 2
2nd do, John Bogue..... 1
Best pair Polands, white-crested black, John Bogue..... 2
2nd do, John Bogue..... 1
Best pair Plymouth Rock, Thomas and Campbell..... 2
2nd do, Edward Collins, Dundas..... 1
Best Brahmas, light, Arthur Nicol, Cataraqui..... 2
2nd do, Breiding and Locke, Berlin..... 1
Best Brahmas, dark, Geo Hope, Port Hope..... 2
2nd do, Breiding and Locke..... 1
Best pair Cochins, buff, Thomas and Campbell..... 2
2nd do, Breiding and Locke..... 1
Best pair Cochins, white, Thomas and Campbell..... 2
2nd do, Robert Nicol..... 1
Best pair Cochins, partridge, Breiding and Locke..... 2
2nd do, Thomas and Campbell..... 1
Best pair Houdans, John Bogue..... 2
2nd do, W M Smith..... 1
Best pair game fowls, black-breasted and other reds, Dan'l Perley, Paris..... 2
2nd do, G T Simpson, Falkland..... 1
Best pair game fowls, duckwing, Sam Wood, Islington..... 2
2nd do, D Perley..... 1
Best pair game fowls, any other variety, Geo Barrow, Brockton..... 2
2nd do, E Moir, Cornwall..... 1
Best pair Leghorns, white, W Stahlschmidt, Paris..... 2
2nd do, W M Smith..... 1
Best pair Leghorns, brown, W Stahlschmidt..... 2
2nd do, Thomas and Campbell..... 1
Best pair Spanish fowls, A F Banks, Toronto..... 2
2nd do, A F Banks, Toronto..... 1
Best pair Hamburgs gold-pencilled, W M Smith..... 2
2nd do, Geo Hope..... 1
Best pair Hamburgs, silver pencilled, J Bogue..... 2
2nd do, Thomas & Campbell..... 1
Best pair Hamburgs, golden spangled, G Hope..... 2
Best pair Hamburgs, silver spangled, John Bogue..... 2

2nd do, John Bogue ..... 1
Best pair Hamburgs, black, W M Smith ..... 2
2nd do, Isaac B Johnston, Toronto ..... 1
Best pair Bantams, Sebright, W W Walker, London ..... 2
2nd do, James Main, Trafalgar ..... 1
Best pair bantams, black-breasted or other reds, Isaac B Johnston ..... 2
2nd do, Isaac B Johnston ..... 1
Best pair bantams, any other variety, W J Way, Toronto ..... 2
2nd do, W W Walker ..... 1
Best pair turkeys, any color, James Main ..... 2
Best pair turkeys, wild, W M Smith ..... 2
Best pair geese, Bremen, James Main ..... 2
Best pair geese, Toulouse, W W Walker ..... 2
2nd do, Thomas & Campbell ..... 1
Best pair geese, any other kind, Jas L Clapp, Sidney ..... 2
Best pair ducks, Aylesbury, John Bogue ..... 2
2nd do, John Bogue ..... 1
Best pair ducks, Rouen, James Main ..... 2
2nd do, James Main ..... 1
Best pair ducks, any other kind, W W Walker ..... 2
2nd do, W M Smith ..... 1
Best pair guinea fowls, Charles Foster, Flamboro' East ..... 2
2nd do, Charles Foster, Flamboro' East ..... 1
Best pair pea fowls, B W Clark, Downsview ..... 2
2nd do, Charles Foster ..... 1
Best pair any other variety not included in these sections, G J Baker, Trafalgar ..... 2
2nd do, G J Baker, Trafalgar ..... 1

PIGEONS.

Best pair carrier, pouter, and tumbler pigeons, J O Weldon, London ..... $2
2nd do, John James, Yorkville ..... 1
Best jacobins, fantails, barbs and trumpeters, John James ..... 2
2nd do, George Hope ..... 1
Best collection of pigeons, any other kinds, Geo Hope ..... 2
2nd do, John James ..... 1

RABBITS.

Best pair long-eared rabbits, James Millington, Toronto ..... $2
2nd do, James Millington, Toronto ..... 1
Best pair common rabbits, G T Simpson ..... 2

CLASS XXVIII.—IMPLEMENTS FOR CULTIVATING AND SOWING THE SOIL, HORSE, STEAM.

Best iron plough, Geo Ross, Chatham, ..... diploma and, $15
2nd do, Thos Doherty, Watford ..... 10
3rd do, A Dobbie, Thorold ..... 5
Best wooden plough, A Dobbie ..... and diploma 12
2nd do, Seegmiller, Corbie & Co., Seaforth ..... 8
Best iron-beam plough, with steel mould board and wooden handles, Gillies & Martin, Teaswater ..... 15
2nd do, Chas Brown, Drumguin ..... 10
3rd do, Gerolamy & Williamson, Tara ..... 5
Best subsoil plough, A Dobbie, ..... diploma and, 12
2nd do, Levi Cossett, Guelph ..... 8
Best double mould plough, A Dobbie ..... 12
2nd do, D Dickson, Scarboro township ..... 7
3rd do, Chas Thain, Guelph ..... 4
Best gang plough, Beatty Bros, Fergus ..... 12
2nd do, Gillies & Martin ..... 8
3rd do, Levi Cossett ..... 4
Best horse hoe or single horse cultivator, iron, Isaac Westcott, Bowmanville ..... 4
2nd do, Copp Bros, Hamilton ..... 3
3rd do, Gerolamy & Williamson ..... 2
Best horse hoe or single horse cultivator, wood, Copp Bros ..... 4
2nd do, E Bettschen, Wilmott Township ..... 3
Best clod crusher, J Abell, Woodbridge ..... 8
Best pair iron harrows, Thos Tipling, Clinton Township ..... 10
2nd do, Colin McKenzie, Markham ..... 8
3rd do, John Doidge, Whitby ..... 6
Best pair of wood harrows, Copp Bros ..... 6
2nd do, James Reid & Son, Cainsville ..... 4
Best wooden roller, Benj Bell & Son, St George ..... 10
Best stump extractor, J Whitfield, Toronto ..... 8
2nd do, Mason Manufacturing Co, Oshawa ..... 4

EXTRAS.—Sidney Smith, Acton, iron plough, extra prize; Benj Bell & Son, one-horse plough for gardeners, two prizes; Copp Bros, one-horse plough, extra prize; John Dane, Gananogue, pulverizer, extra prize.

CLASS XXIX.—IMPLEMENTS AND MACHINES FOR HARVESTING, PREPARING PRODUCTS FOR USE, CARRIAGE, ETC.—HORSE OR OTHER POWER.

Best sulky horse rake, Massey Manufacturing Co, Newcastle ..... $8
2nd do, J P Billington, Dundas ..... 6
3rd do, Dickie & Kennedy, Oshawa ..... 4
Best horse pitchfork and tackle, J F Switzer, Meadowvale ..... 6
Best straw cutter, Joseph Fleury, Aurora ..... 8
2nd do, Gerolamy & Williamson ..... 6
3rd do, A & W Wilson ..... 4
Best machine for cutting roots for stock, James T Burns, King ..... 8
Best cider mill and press, T F Brown, East Ottawa ..... diploma.
Best two-horse team waggon, W B Gower, Etobicoke ..... 12
2nd do, Peter Adams, Paris ..... 8
3rd do, Speight & Son, Markham ..... 4
Best two-horse spring market waggon, A Wright & Son, Richmond Hill ..... 10
2nd do, Jos Macdonnell, Newtonbrook ..... 7
Best one-horse light market waggon, W Sage & Co, London ..... 9

EXTRAS.—Robert Crow, York East, lorrie, highly commended.

CLASS XXX.—AGRICULTURAL TOOLS AND IMPLEMENTS, CHIEFLY FOR HAND USE.

Best machine for making drain tiles, G S Tiffany, London ..... diploma and $20
Best set draining tools, J Wright Westminster ..... 6
2nd do, R E Stephens, Toronto ..... 4
Best half-dozen manure forks, A S Whiting Manufacturing Co, Cedar Dale ..... 8
Best half-dozen spading forks, A S Whiting Manufacturing Co ..... 3
Best garden walk or lawn-roller, Copp Bros, Hamilton ..... 3
Best half-dozen grass scythes, A S Whiting Manufacturing Co ..... 3
Best half-dozen cradle scythes, A S Whiting Manufacturing Co ..... 3
Best lawn mowing machine, Levi Cossett, Guelph ..... 6
2nd do, Wilkie and Osborne, Guelph ..... 3
Best half-dozen hay rakes, H E Ketchum, Strathroy ..... 3
2nd do, H E Ketchum, Strathroy ..... 2
Best half-dozen hay forks, A S Whiting Manufacturing Co. 4
Best straw or barley fork, wood, A Hershey, Bertie ..... 2
2nd do, H E Ketchum ..... 1
Best fanning mill, Gerolamy & Williamson ..... diploma and 10
2nd do, C H Honey, Oshawa ..... 8
3rd do, A & W Wilson ..... 6
Best churn, McMurray & Fuller, Toronto ..... 3
2nd do, C Lewis, Salford ..... 2
Best bee-hive, Charles Dodd, Colborne Township ..... 3
2nd do, J Niven, Niagara Township ..... 2
Best half-dozen axe handles, J Kelly, Percy Township ..... 2
Best set horseshoes, James Wall, Hamilton ..... 3
2nd do, Hugh Cald, Toronto ..... 2
3rd do, Thomas Tipling ..... 1
Best farm gate, R E Stephens ..... 3
2nd do, R E Stephens ..... 2
3rd do, Thomas Grey, Newmarket ..... Trans.
Best specimen wire fencing, not less than two rods, erected on the ground, Washburn Mfg Co, Washburn, U S ..... 8
Best wooden pump, Oliver McDonald, Guelph ..... 4
2nd do, Plewes & Kennedy, Toronto ..... 3
3rd do, Ontario Pump Co, Toronto ..... 2

EXTRAS.—Highly commended: J W Reid, Hamilton, hand cultivator; M B Hudson, Cobourg, bag-holder; J E Strong, Yorkville, farm gate; Steel Bros, Toronto, double wheel hoe, combined drill and hoe, garden plough, hand garden plough, transplanters, hoes Nos. 1 and 2; Edward Collins, Dundas, bag-holder; Hugh Caldwell, Toronto Township, set of hunting shoes, horse shoeing tools; Honey Bros, Mitchell, pair of bar shoes; Thos Williams, Toronto, steel self-sharpening horse shoes; Leitch & Turnbull, Hamilton, waggon jack; R E Stephens, Toronto, process of butter packing; T S Evans, Kingsey, Quebec, self-creamer.

COMMENDED.—Alex Gibson, Burford, potato bag; J & G Handcock, Montreal, butter machine; James H Merkeley, Mathilda, butter worker; W McEvoy, Woodburn, bee smoker; E Collins, Dundas, bag holder; A Dobbie, Thorold, two-horse lawn sod cultivator; Hugh Cald, steeplechasing shoes; Hugh Cald, snowshoes; Hugh Cald, barrel shoes; Thos Burton, Courtwright, brick cover; W W Jackson, Toronto, set of interfering shoes; W W Jackson, Toronto, round shoes; G A Evans, Kingsey, self-creamer; Parmenter & Goulette, Gananoque, fanning mill and grain separator; Oliver McDonald, Guelph, garden engine; Oliver McDonald, force pump.

## AGRICULTURAL PRODUCTIONS.

CLASS XXXI—FIELD GRAINS, HOPS, ETC.

The Canada Company's prize for the best 25 bushels of fall wheat, the produce of the Province of Ontario, being the growth of 1878. Each sample must be of one distinct variety, pure and unmixed, of the best quality for seed, and not to be tested merely by weight. The prizes to be awarded to the actual grower only of the wheat, which is to be given up to and become the property of the Association, for distribution in the several agricultural districts for seeds, W Tuck, Nelson ..... $100
2nd do, by the Association, Thos Stock, East Flamboro' ..... 40
3rd do, by the Association, D Stock, East Flamboro' ..... 20
Best white winter wheat, 2 bushels, W Tuck ..... 10
2nd do, G A Weis, Ameliasburg ..... 8
3rd do, D Roelofson, Barton township ..... 6
4th do, Thos Stock ..... 4
Best red winter wheat, 2 bushels, John Smith, Burford ..... 8
2nd do, Chas Grant, Thornbury ..... 6
3rd do, Robert Hoy, Thornbury ..... 4
4th do, Robert Shearar, Niagara township ..... 2
Best Clawson wheat, 2 bushels, T Stock ..... 8
2nd do, Dr E H Coleman, Sidney ..... 6
3rd do, D Roelofson ..... 4
4th do, A W Morden, Craigvale ..... 2
Best Egyptian spring wheat, 2 bushels, T McEvers, Hamilton township ..... 8
2nd do, Chas Grant, Thornbury ..... 6
3rd do, T and J Manderson, Reach ..... 4
Best Fyfe spring wheat, 2 bushels, Chas Grant ..... 8
2nd do, G A Weis ..... 6
3rd do, Robert Hoy ..... 4
Best spring wheat, of any other variety, 2 bushels, Chas Grant ..... 8
2nd do, Chas Grant ..... 6
3rd do, Chas Grant ..... 4
Best barley (2-rowed), 2 bushels, Simpson Rennie, Scarboro' ..... 6
2nd do, Chas Grant ..... 4
3rd do, Thos Gibson, Markham township ..... 2
4th do, D Carstairs, Harwood ..... Trans.
Best barley (6-rowed), 2 bushels, D Carstairs ..... 6
2nd do, R Tuck ..... 4
3rd do, G A Weis, ..... 2
4th do, T McEvers ..... Trans
Best winter rye, 2 bushels, W Smith, Oakland ..... 6
2nd do, D Carstairs ..... 4
3rd do, G A Weis ..... 2
4th do, J D Clarke, Britannia ..... Trans.
Best spring rye, 2 bushels, A W Wood, Davenport ..... 8
2nd do, Chas Grant ..... 6
Best oats (white), 2 bushels, T and J Manderson ..... 6
2nd do, D Carstairs ..... 4
3rd do, W Riddell, Hamilton ..... 2
4th do, W Sunderland, Carmichael ..... Trans.
Best oats (black), 2 busnels, J Kennedy, London township ..... 6
2nd do, T and J Manderson ..... 4
3rd do, D Carstairs ..... 2
4th do, J Smith, Burford ..... Trans.
Best small field peas, 2 bushels, G A Weis ..... 6
2nd do, T and J Manderson ..... 4
3rd do, Chas Grant ..... 2
4th do, Julius Breuls, Ringwood ..... Trans.
Best marrowfat peas, 2 bushels, D Carstairs ..... 6
2nd do, Chas Grant ..... 4
3rd do, G A Weis ..... 2
4th do, T and J Manderson ..... Trans.
Best field peas, 2 bushels of any other kind, T and J Manderson ..... 6
2nd do, Julius Breuls ..... 4
3rd do, Chas Grant ..... 2
Best small white field beans, bushel, C Lewis, Salford ..... 6
2nd do, J D Lutz, Saltfleet township ..... 4
3rd do, W Riddell ..... 2
Best large white field beans, bushel, C Lewis ..... 6
2nd do, J D Lutz ..... 4
Best Indian corn in the ear (white), 2 bushels, Hy Lutz ..... 2
2nd do, J D Lutz ..... 6
3rd do, H J Brown, Niagara ..... 4
4th do, Platt Hinman, Haldimand ..... Trans.
Best white dent corn in the ear, 2 bushels, Thos Stock ..... 6
Best Indian corn (yellow), 1 bushels, H Lutz ..... 4
2nd do, J D Lutz ..... 2
3rd do, C M Husberger ..... Trans.
4th do, F Peck ..... 20
Best bale of hops, not less than 112 lbs., M A Abby Preston ..... 15
2nd do, Jos Johnston, Dorchester ..... 10
3rd do, Jardinn & Sons, Hamilton ..... 6

EXTRA ENTRIES.—H J Coate, Cardwell township, sheaf of oats, commended for special prize; A Grant, samples of grain threshed and unthreshed, commended for $10

CLASS XXXII.—SMALL FIELD SEEDS, FLAX, HEMP, ETC.

Best timothy seed, bushel, C Lewis ..... $6
2nd do, J Kennedy ..... 4
3rd do, G A Weis ..... 2
3th do, Julius Breuls ..... Trans.
Best clover seed, bushel, Simpson Rennie ..... 6
2nd do, Thomas Keys, Grantham ..... 4
3rd do, J Smith ..... 2
4th do, W M Smith ..... Trans
Best Alsike clover seed, half bushel, J Smith ..... 6
2nd do, W M Smith ..... 4
Best flax seed, bushel, Julius Breuls ..... 6
Best Swedish turnip seed, from transplanted bulbs, not less than 12 lbs., John Crumb ..... 6
2nd do, Alfred Crumb ..... 4
Best white Belgian field carrot seed, 12 lbs., John Crumb ..... 5
2nd do, Alfred Crumb ..... 4
3rd do, Walter Riddell ..... 2
Best long red mangel-wurtzel seed, 12 lbs., Alfred Crump ..... 6
Best yellow globe mangel-wurtzel seed, 12 lbs., Alfred Crumb ..... 6
2nd do, Walter Riddell ..... 4
Best tares, bushel, Julius Breuls ..... 6
2nd do, Walter Riddell ..... 3
Best buckwheat, bushel, J Smith ..... 4
2nd do, Francis Peck ..... 2
3rd do, J D Lutz ..... Trans.
Best millett, bushel, W M Smith ..... 4
2nd do, J Smith ..... 2
3rd do, Charles Foster ..... Trans
Best Hungarian grass seed, bushel, W M Smith ..... 4
2nd do, John Smith ..... 2

EXTRAS.—Elliott & Co, Toronto, flax seed or oil cake, first prize.

CLASS XXXIII.—FIELD ROOTS, ETC.

Best Climax potatoes, Charles Foster ..... $3
2nd do, W Bugess, Mimico ..... 2
3rd do, Charles Scott, Caledon ..... 1
Best Garnet Chills, bushel, John Hewer, Guelph ..... 3
2nd do, James Moore ..... 2
3rd do, Charles Scott ..... 1
Best Crompton's Surprise potatoes, Jas Haire, Eoronto ..... 3
2nd do, John Hewer ..... 2
3rd do, F Daniels, Etobicoke ..... 1
Best Brownell's Beauty, bushel, John Hewer ..... 3
2nd do, Christopher Moore, Orillia ..... 2
Best Bresee's Prolific, bushel, Christopher Moore ..... 3
2nd do, F Peck ..... 2
3rd do, Charles Scott ..... 3
Best Peachblows, bushel, C Payne, Warsaw ..... 1
2nd do, Chas Foster ..... 2
Best Ruby potatoes, bushel, John Smith ..... 3
2nd do, Chas Scott ..... 2
Best any other sort of potatoes, bushel, Christopher Moore ..... 3
2nd do, R H Styles, Cardwell township ..... 2
3rd do, F Peck ..... 1
Best seedling potatoes, F Peck ..... 3
Best collection of field potatoes, half peck of each sort, named, Chas Scott ..... 6
2nd do, John Hewer ..... 4
3rd do, F Peck ..... 2
Best eight roots, Marshall's improved Swede turnips, Thos Talbott, Eramosa ..... 3
2nd do, Chas Scott ..... 2
3rd do, John Hewer ..... 1
Best eight roots, Carter's Swede turnips, Thos Talbott ..... 3
2nd do, Chas Scott ..... 2
2rd do, Thos Stock ..... 1
Best eight roots, Skirving's Swede turnips, Chas Scott ..... 3
2nd do, John Hewer ..... 2
3rd do, Thos Stock ..... 1
Best eight roots, Shamrock Swede, Thos Stock ..... 3
2nd do, Chas Scott ..... 2
Best eight roots Bangholm Swede, Edward Stock, Mimico ..... 3
2nd do, Geo Keyes, Scarboro' ..... 2
3rd do, Thos Stock ..... 1
Best eight roots Sutton's champion turnips, Thos Talbott ..... 3
2nd do, John Hewer ..... 2
3rd do, Wm Burgess ..... 1
Best eight roots Westbury turnips, Chas Scott ..... 3
2nd do, Thos Stock ..... 2
Best eight roots white globe turnips, Chas Scott ..... 3
2nd do, John Hewer ..... 2
3rd do, F Daniels ..... 1
Best eight roots greystone turnips, Chas Scott ..... 3
2nd do, John Brewer, Guelph ..... 2
3rd do, F Daniels ..... 1
Best eight roots Aberdeen yellows, Chas Scott ..... 3
Best twelve roots red carrots, W Burgess ..... 3
2nd do, Ed Stock ..... 2
3rd do, C E Brown, Mimico ..... 1
Best twelve roots white or Belgian carrots, Simpson Rennie ..... 3
2nd do, W Burgess ..... 2
3rd do, W Rodden, Plantagenet ..... 1
Best eight roots mangel wurzel (long red), Simpson Rennie ..... 3
2nd do, Ed Stock ..... 2
3rd do, Wm Burgess ..... 1
Best eight roots red globe mangel wurzel, Simpson Rennie ..... 3
2nd do, W Burgess ..... 2
3rd do, John Pratt Hamilton ..... 1
Best eight roots yellow globe mangel wurzel, W Burgess ..... 3
2nd do, Ed Stock ..... 2
3rd do, John Pratt ..... 1
Best eight roots long yellow mangel wurzel, Simpson Rennie ..... 3
2nd do, W Burgess ..... 2
3rd do, C E Brown ..... 1
Best eight roots kohl rabi, W Burgess ..... 3
2nd do, John Pratt ..... 2
3rd do, Chas Scott ..... 1
Best eight roots white sugar beet, John Pratt ..... 3
2nd do, Joshua Sisby, Richmond Hill ..... 2
Best twelve roots parsnips, W Burgess ..... 3

2nd do, W Benham, Guelph ..... 2
3rd do, C E Brown ..... Trans.
Best twelve roots chicory, W Benham ..... 3
2nd do, W Burgess ..... 2
3rd do, C E Brown ..... Trans.
Best two large squashes for cattle, R Morgan, Islington ..... 3
2nd do, Jas Hayward, Doncaster ..... 2
Best two mammoth field pumpkins, Jas Hayward ..... 3
2nd do, James Moore ..... 2
Best four common yellow field do, Joshua Sisley ..... 3
2nd do, James Moore ..... 2
3rd do, Julius Breuls ..... Trans.
Special prize, offered by J A Simmers, seedsman, Toronto, for the best and most creditable assortment of field roots of any kind, Joshua Sisley ..... 10

## DAIRY PRODUCTS.

CLASS XXXIV.—DAIRY PRODUCE, ETC.

Best three firkins of butter, fitted for exportation, not less than 56 lbs in each firkin, J McClung, Lobo ..... $20
Best firkin of butter in shipping order, not less than 56 lbs, Hugh Clark, Chinguacousy ..... 14
2nd do, John McClung ..... 12
3rd do, W Dunn, Oxford ..... 10
4th do, Gales, Woodcock, & Co, New Hamburg ..... 8
5th do, E H Mills, Winchester ..... 6
6th do, W Carmichael, Sunderland ..... 4
Best butter, not less than 28 lbs in firkin, crocks, or tubs, Hugh Clark ..... 10
2nd do, W Dunn ..... 8
3rd do, James Burns, King ..... 6
4th do, L E Shipley, Greystead ..... 5
5th do, Benj Tuck, Hornby ..... 4
6th do, Malcolm McArthur, Lobo ..... 2
Best 6 factory cheeses, not less than 45 lbs each, with statement of number of cows, and management of factory, J A James, N. Dorchester ..... 50
2nd do, W Agur, Westminster ..... 40
3rd do, A G Anderson, Wyoming ..... 25
4th do, M R & J E Bates, Leeds ..... 15
5th do, E Hunter, N. Dorchester ..... 12
6th do, R Facey, Harrietsville ..... 8
Best cheese, dairy, not less than 30 lbs, W Harris, Dereham ..... 12
2nd do, M Ballantyne, B'anshard ..... 10
3rd do, J Kowat, N. Dorchester ..... 8
4th do, J Anderson, Guelph ..... 6
Best two Canada Stilton cheeses, not less than 8 lbs each, Mrs Eliza Parsons, Guelph ..... 8
Best 3 Canada Glo'ster or Wiltshire or truckle cheeses, not less than 8 lbs each, A T Anderson, Wyoming ..... 8
2nd do, M Ballantyne, B'anshard ..... 6
3rd do, W J Johnston, Markham Tp ..... 4
Best collection of butter tubs for shipping purposes, C Lewis, Salford ..... 6

CLASS XXXV.—HONEY, SUGAR, BACON, ETC.

Best Honey in the comb, not less than 10 lbs, Geo Sturgeon, Kincardine ..... $4
2nd do, A J Mackay, Underwood ..... 2
3rd do, James Leslie, Toronto ..... 1
4th do, Saml Wood, Islington ..... Trans.
Best jar of clear honey, Chas Dodd, Colborne township ..... 4
2nd do, A J Mackay ..... 2
3rd do, Lillie Switzer, Meadowvale ..... 1
4th do, Francis Baby, Lambton Mills ..... Trans
Best maple sugar, 30 lbs, cake, Julius Breuls, Ringwood ..... 3
2nd do, Platt Hinman, Haldimand ..... 2
Best maple sugar, 30 lbs, stirred, Platt Hinman, Haldimand ..... 3
Best side of cured bacon, F W Fearman, Hamilton ..... 4
2nd do, F W Fearman ..... 3
3rd do, F W Fearman ..... 2
Best ham, cured, James Park, Toronto ..... 3

EXTRAS.—James Park, dry meats; Guiseppe Pisati, Kingston, Bologna sausages, both raw and cooked; do for sausage de Montabella; do pigs' feet. James Park, preserved meat and spiced beef.

## MACHINERY.

CLASS LIV.—MACHINERY AND PARTS THEREOF, TOOLS CASTINGS, ETC.

Best portable steam engine for agricultural purposes, not less than 6-horse power, John Abell, Woodbridge ..... $30
2nd do, Waterous Engine Works ..... 20
3rd do, R Whitlaw, Woodstock ..... 10
Best boiler, for steam engine, Waterous Engine Works, Brantford ..... 12
Highly commended, W Hamilton, Peterboro'; commended, John Doty, Toronto
Best agricultural boiler for steaming food, John Doty, Toronto ..... 6
Best engineers' brass work, assortment, John Ritchie & Son, Toronto ..... 8
2nd do, Lauder & Thornton, Toronto ..... 5
Best engine, steam, stationary, one to four horse power, in operation, W Hamilton, Peterboro' ..... 15
Highly commended, John Doty.
Best engine, steam, stationary, five-horse power or upwards in operation, Goldie & McCulloch, Galt ..... 20
2nd do, Jacob Beck, Baden ..... 12
Highly commended, Thompson & Williams, Stratford.
Best engine, portable, John Abell, Woodbridge ..... 15
2nd do, Waterous Engine Works ..... 10
Best engine, steam, model of improved, H T Smith, Toronto ..... diploma.
Best fire engine, hand power, E Glendillen, Owen Sound ..... 10
Best fire extinguisher, self-acting or chemical, Fire Extinguishing Manufacturing Co, Toronto ..... 6
Best fountain, S King, Hamilton ..... 6
Highly commended, Robertson & Dayer, Oakville.
Best low water alarm or indicator, John Ritchie & Son ..... 4
Pumps, metal, for wells or cisterns, assortment, J A Martin & Co, Montreal ..... 6
2nd do, Robertson & Dayer, Oakville ..... 4
Pump, double acting, lift or force, J A McMartin & Co ..... 4
2nd do, Arch Riddell, Georgetown ..... 2
Pump, force, for hand use, J A McMartin & Co ..... 4
2nd do, E Glendillen ..... 2
Highly commended, Plews & Kennedy, Toronto
Pump, steam, Jas Martin & Sons, Toronto ..... 4
Steam engine governor, Goldie & McCulloch, Galt ..... 4
2nd do, Goldie & McCulloch, Galt ..... 2
Steam gauge, James Morrison, Toronto ..... 4
2nd do, Lauder & Thornton, Toronto ..... 2
Valves and gearing for working steam expansively, either in model or otherwise; principle of working to be the point of competition, Goldie & McCulloch ..... 10
Water wheel, Goldie & McCulloch ..... 12
2nd do, J C Wilson & Co, Picton ..... 8
Windmill in operation, U S Wind Engine Co, Batavia, Ill. 6
2nd do, Robertson & Dayer ..... 4
Best bolting cloth, W Greey, Toronto ..... $4
Best bran duster, Barter Manufacturing Co, Toronto ..... 3
2nd do, W Greey ..... 2
Best brick-making machine, Jamieson & Carroll, Toronto. 10
2nd do, G S Tiffany, London ..... 6
Best card clothing, assortment, Samuel Briggs, Toronto ..... 4
Best car coupling, railroad, Thomas Muir, London ..... 4
2nd do, J J Suppin, Davenport ..... 2
Best grist mill, portable, Goldie & McCulloch ..... 6
2nd do, R H Oates, Toronto ..... 4
Best knitting machines (power), for manufacturing, H Bailey, Toronto ..... 4
Best knitting machine (hand), H Bailey ..... 4
2nd do, Franz & Pope, Georgetown ..... 2
Best millstones, pair, Goldie & McCulloch ..... 4
2nd do, R H Oates ..... 2
Best printing press, power or treadle, Westman & Baker, Toronto ..... 6
Best smut machine and separator, W Greey ..... 6
2nd do, Barter Manufacturing Co, ..... 4
Commended, H J Simgood, Brantford
Best spinning machine, hand, E Glendillen, Owen Sound ... 4

EXTRAS.—Washburn & Moen Manufacturing Co, Worcester, U S, machine for manufacturing fencing, 1st prize; Goldie & McCulloch, millstone spindle, 2nd prize: do, patent millstone eye, 1st prize; do, flour packer, 1st prize; do, coupling, 1st priee; do wiring machine, double action, 1st prize; Garden City Purifier Co, Toronto, Garden City middlings purifier, 1st prize; do, zig-zag separator, 1st prize; do, brush machine, 1st prize; Harford Ashley, Beleville, gang cheese press for stiltons, 1st prize; Canada Scroll Saw Company, scroll saw, &c, 1st prize; Waterous Engine Works Association, saw gummers, 1st prize; do, swages, 1st prize; Francis Culham, Burford, semaphore signal, highly commended; Wm Greey, bag packer, 1st prize; do, grain chronometer, 1st prize; do, mill spindle and eye, &c, 1st prize; do, diamond millstone dressing machine, 1st prize; do, bag truck, commended; do, picks and handles, 1st prize; Jos Davis, Toronto, cow milker, commended; R H Oates, chopping mill gearing, 1st prize; Alex Charlesworth, Egmondville, champion middlings purifier, 2nd prize; Barter Manufacturing Co, buckwheat polisher, 1st prize; do, oat separator, 2nd prize; do, stone curb and little grain scourer, 1st prize; Steel Co, of Canada, Toronto, samples of iron, 1st prize; George Harding, Toronto, 4-pull cabinet beer engine, 1st prize; G Maguire, Toronto, combination boiler feeder and water indicator, 1st prize; George Langhill, Truro, U S, model of wind power horizontal, 1st prize; R D Chatterton, Colourg, car brakes, commended; Frontenac Lead Mining Co, Kingston, lead ores and bar lead, 1st prize; Cottrill & Babcock, New York, improved printing press, 1st prize; Harry piper, Toronto, singing birds, 1st prize; Keith & McAllister, Hamilton, patent cockle separator, 1st prize.

James Martin & Son, Toronto, assortment steam pumps, 1st prize; H T Smith, Toronto, steam soda water pump, 1st prize; hand soda water pump, 1st prize; self-acting soda water machine, 1st prize; bottling machine, 1st prize; do, for patent stoppers, 1st prize; large copper generator, 1st prize; syphon ale-bottling machine, 1st prize; syrup pump for bottling soda water, 1st prize; self-acting generator, 1st prize; Kenyon Bros, Toronto, meat choppers, 1st prize; W Hamilton, rotary force pump, 1st prize; Holt & Co, Toronto, well excavator, 1st prize; Joseph Phillips, Toronto, gas-making machine, 1st prize; John Whitfield, Toronto, chairs, 1st prize; F B Hawkes, Toronto, model steam soda water pumps, 1st prize; model soda water bottling table, 1st prize; John Ritchie & Son, brass castings, brass work, plumbers' fitting and lead work, beer pumps and pulls, 1st prize; Philip Volman, Seaforth, stave jointer, 1st prize; John Doty, Toronto, boiler feed pumps, 2nd prize; Rolph, Smith & Co, Toronto, lithographing and steam printing press, diploma; James Morrison, Toronto, lock-up safety valves, safety steam indicators, safety cylinder patent lubricators, 1st prize; Donald McKay, Lindsay, champion tire upsetter, 1st prize; Chas Hammelman, Buffalo, portable forge, 1st prize; portable blacksmith's hand blower, 2nd prize; Quirk Bros and Johnson, Toronto, hydraulic motor, 1st prize: G A Hamilton, Toronto, steam boiler alarm, 1st prize; Jacob Beck, Baden, boiler feed pump, 1st prize.

## CATTLE.

CLASS X—GALLOWAYS.

Best bull, 4 years old and upwards, Thos McCrae, Guelph. $30
Best bull, 3 years old, A Devlin, Guelph ..... 30
2nd do, Thos McCrae ..... 20
Best bull, 2 years old, W McCrae, Guelph ..... 20
2nd do, Thos McCrae ..... 15
Best bull, 1 year old, Thos McCrae ..... 20
2nd do, Thos McCrae ..... 15
Best bull calf, under 1 year, W McCrae ..... 15
2nd do, Thos McCrae ..... 10
3rd do, Thos McCrae ..... 5
Best bull of any age, Thos McCrae ..... Diploma
Best cow, Thos McCrae ..... 20
2nd do, A Devlin ..... 15
3rd do, W McCrae ..... 10
Best cow, 3 years old, W McCrae ..... 20
Best heifer, 2 years old, W McCrae ..... 15
2nd do, A Devlin ..... 10
3rd do, A Devlin ..... 5
Best heifer, 1 year old, A Devlin ..... 12
2nd do, Thos McCrae ..... 8
3rd do, Thos McCrae ..... 4
Best heifer calf, under 1 year, W McCrae ..... 12
2nd do, Thos McCrae ..... 8
3rd do, W McCrae ..... 4
Best herd of Galloway cattle, consisting of one bull and five females of any age or ages, Thos McCrae ..... 30

CLASS VII—HEREFORDS.

All the prizes in this class were awarded to F W Stone.

CLASS XI—JERSEY OR ALDERNEY CATTLE.

Best bull, 3 years and upwards, Mrs E Jones ..... $15
Best yearling bull, Hugh Clark ..... 8
Best cow, 3 years and upwards, Hugh Clark ..... 15
2nd do, Hugh Clark ..... 10
3rd do, Mrs E Jones ..... 7
Best heifer, 2 years old, Hugh Clark ..... 10
2nd do, Hugh Clark ..... 6
Best yearling heifer, Hugh Clark ..... 8

## SHEEP.

CLASS XVII—LINCOLN SHEEP.

Best ram, 2 shears and over, C S Smith ..... $20
2nd do, Samuel Langford ..... 17
3rd do, John Proctor, Nelson ..... 12
Best shearling ram, Samuel Langford ..... 20
2nd do, Andrew Murray ..... 17
3rd do, C C Smith ..... 12
Best ram lamb, Geo Douglas ..... 17
2nd do, C S Smith ..... 14
3rd do, Andrew Murray ..... 11
Best 2 ewes, 2 shears and over, Sam'l Langford ..... 20
2nd do, Sam'l Langford ..... 15
3rd do, Andrew Murray ..... 10
Best 2 shearling ewes, Sam'l Langford ..... 20
2nd do, Sam'l Langford ..... 15
3rd do, Sam'l Langford ..... 10
Best 2 ewe lambs, C S Smith ..... 17
2nd do, Joseph Parkinson ..... 14
3rd do, Andrew Murray ..... 11
Best pen Lincolns—1 ram, 3 ewes, 2 shears and over, 3 shearling ewes, and 3 ewe lambs, Sam'l Langford ..... 20

## SWINE.

CLASS XXII—SUFFOLKS.

Best boar, over 2 years, James Main ..... $15
2nd do, Robert Dorsey ..... 10
3rd do, Joseph Featherstone ..... 5
Best boar, over 1 year and under 2, Thomas Feezdel ..... 15
2nd do, Joseph Featherstone ..... 10
3rd do, Joseph Featherstone ..... 5
Best boar, over 6 months and under 12, Christopher Edmonson ..... 15
2nd do, Joseph Featherstone ..... 10
3rd do, Joseph Featherstone ..... 5
Best boar, under 6 months, Robert Chadwick ..... 12
2nd do, Robert Chadwick ..... 8
3rd do, J and R Leslie ..... 4
Best sow, over 2 years, Joseph Featherstone ..... 15
2nd do, J P Peacock ..... 10
3rd do, Chris Edmonson ..... 5
Best sow, over 1 year and under 2, J T Peacock ..... 15
2nd do, Jos Featherstone ..... 10
3rd do, Robert Dorsey ..... 5
Best sow, over 6 months and under 12, Chris Edmonson ..... 15
2nd do, Jos Featherstone ..... 10
3rd do, James Main ..... 5
Best sow, under 6 months, J T Peacock ..... 12
2nd do, Saml Wood ..... 8
3rd do, J and R Leslie ..... 4

CLASS XXIII—ESSEX PIGS.

Best boar, over 2 years, James Anderson ..... $15
2nd do, Joseph Featherstone ..... 10
Best boar, over 6 months and under 12, John Hewer ..... 15
2nd do, James Anderson ..... 10
3rd do, Joseph Featherstone ..... 5
Best boar, under 6 months, Jos Featherstone ..... 12
2nd do, Jos Featherstone ..... 8
3rd do, Jos Featherstone ..... 4

The remaining nine prizes in this class were awarded to Joseph Featherstone.

## POULTRY, ETC.

CLASS XXV.

Best pair Dorkings, white, John Bogue ..... $3
2nd do, W M Smith ..... 2
Best pair Dorkings, silver grey, John Bogue ..... 3
2nd do, Wm Bell ..... 2
Best pair Dorkings, coloured, Thomas & Campbell ..... 3
2nd do, Wm Bell ..... 2
Best pair Polands, white, John Aldons ..... 3
2nd do, W M Smith ..... 2
Best pair Polands, golden, John Bogue ..... 3
2nd do, Thomas & Campbell ..... 2
Best pair Polands, silver, John Bogue ..... 3
2nd do, John Bogue ..... 2
Best pair Polands, white-crested black, John Bogue ..... 3
2nd do, John Bogue
Best pair Plymouth Rock, Thomas Campbell ..... 3
2nd do, W M Smith ..... 2
Best pair Brahmas, light, Breiding & Locke ..... 3
2nd do, Breiding & Locke ..... 2
Best pair Brahmas, dark, Charlesworth Bros ..... 3
2nd do, Breiding & Locke ..... 2
Best pair Cochins, buff, Thomas and Campbell ..... 3
2nd do, B F Hawkes ..... 2
Best pair Cochins, white, Breiding and Locke ..... 3
2nd do, G Hope ..... 2
Best pair Cochins, partridge, Breiding and Locke ..... 3
2nd do, Thomas and Campbell ..... 2
Best pair Houdans, John Bogue ..... 3
2nd do, Thomas and Campbell ..... 2
Best pair game fowls, black-breasted or other reds, J D Stotts ..... 3
2nd do, Geo T Simpson ..... 2
Best pair game fowls, duckwing, Daniel Perley ..... 3
2nd do, Samuel Wood ..... 2
Best pair game fowls, any other variety, E Moir ..... 3
2nd do, W M Smith ..... 2
Best pair Leghorns, white, W Stahlschmidt ..... 3
2nd do, W M Smith ..... 2
Best pair Leghorns, brown, W Stahlschmidt ..... 3
2nd do, W M Smith ..... 2
Best pair Spanish fowls, John Bogue ..... 3
2nd do, Jas L Clapp ..... 2
Best pair Hamburgs, golden-pencilled, Geo Hope ..... 3
2nd do, Geo Hope ..... 2
Best pair Hamburgs, silver-pencilled, John Bogue ..... 3
2nd do, Thomas and Campbell ..... 2
Best pair Hamburgs, golden-spangled, Isaac B Johnston ..... 3

2nd do, John Aldons ..... 2
Best pair Hamburgs, silver-spangled, John Bogue ..... 3
2nd do, W M Smith ..... 2
Best Hamburgs, black, Geo T Simpson ..... 3
2nd do, Samuel Wood ..... 2
Best pair Bantams, Seabright, James Main ..... 3
2nd do, W W Walker ..... 2
Best pair Bantams, black-breasted or other reds, Isaac B Johnston ..... 3
2nd do, F B Hawkes ..... 2
Best pair Bantams, duckwing game, W W Walker ..... 3
2nd do, W M Smith ..... 2
Best pair Bantams, any other variety, W J Way ..... 3
2nd do W W Walker ..... 2
Best pair turkeys, any colour, James Main ..... 3
2nd do, Platt Hinmon ..... 2
Best pair wild turkeys, W M Smith ..... 3
2nd do, W M Smith ..... 2
Best pair Bremen geese, James L Clapp ..... 3
2nd do, James Main ..... 2
Best pair Toulous geese, W M Smith ..... 3
2nd do, W W Walker ..... 2
Best pair geese, English grey and common, W G Groom ..... 3
Best pair geese, any other kind, W M Smith ..... 3
2nd do, James L Clapp ..... 2
Best pair Aylesbury ducks, John Bogue ..... 3
2nd do, John Bogue ..... 2
Best pair ducks, Rouen, Jas Main ..... 3
2nd do, G T Simpson ..... 2
Best pair ducks, any other kind, W M Smith ..... 3
2nd do, W W Walker ..... 2
Best pair guinea fowls, Charles Foster ..... 3
2nd do, W M Smith ..... 2
Best pair pea fowls, Charles Foster ..... 3
2nd do, B W Clark ..... 2
Best pair any other variety of fowls not included in these sections, G J Baker ..... 3
2nd do, Thomas Campbell ..... 2

CLASS LII—CARRIAGES AND SLEIGHS, AND PARTS THEREOF.

Best buggy, double-seated, uncovered, Hutchinson and Burns, Toronto ..... 6
2nd do, John Dixon, Toronto ..... 4
Best buggy, single-seated, covered, Wm Dixon, Toronto ..... 8
2nd do, Wm D Jeffrey, Welland ..... 6
Best buggy, single-seated, uncovered, James Lawrence, Simcoe ..... 6
2nd do, A Wright and Son, Richmond Hill ..... 4
Best carriage, hack, Hutchinson and Burns ..... 10
2nd do, W Sage and Co, London ..... 6
Best carriage, two-horse, pleasure, W Dixon ..... 12
2nd do, Hutchinson and Burns ..... 8
Best carriage, child's (perambulator), T Simmens and Bro, Hamilton ..... 3
Best carriage and buggy wood-work (assortment of), R McLeary, Watford ..... 10
2nd do, W Corris, Rochester, N Y ..... 6
Best Democrat waggon, W Sage and Co ..... 7
2nd do, J B Armstrong and Co, Guelph ..... 4
Best hubs, carriage, one dozen, F W Horr, Greensville ..... 3
2nd do, W Corris and Co, Rochester ..... 2
Best phaeton, pony, W Dixon ..... 6
2nd do, Hutchinson and Burns ..... 4
Best phaeton, covered, W Dixon ..... 6
2nd do, Hutchinson and Burns ..... 4
Best rims or felloes, one dozen, R McLeary ..... 3
2nd do, F W Horr ..... 2
Best sleigh, two-horse, pleasure, L O'Connor, Lindsay ..... 8
2nd do, J Dixon ..... 6
Best pleasure cutter, McConnell and Thompson, Guelph ..... 6
2nd do, W H Brown, Stouffville ..... 4
Best sleigh and cutter stuff, assortment, R McLeary ..... 6
Best spokes, carriage, machine-made, W Corris and Co ..... 3
2nd do, F W Horr ..... 2
Best springs, one set steel carriage, Guelph Carriage Goods Co ..... 5
Best wheels, 1 pair of carriage, unpainted, Woodburn Mfg Co, Indianapolis ..... 3
2nd do, W Corris and Co ..... 2

EXTRAS.—W Sage, sulkey road wagon, commended; W J Hamill, St Catharines, trotting sulkey, do; Ben Nash, London, hearse, 1st prize; M Guy, Toronto, child's hearse, highly commended; Guelph Carriage Goods Co, patent anti-shaft rattlers, highly commended; J Dixon, rumble phaeton, 1st prize; J Dixon, two-wheel dog cart, highly commended; Brown and St Charles, Belleville, omnibus, commended; S Beatty, Toronto, novelty wagon top, commended; McConnell and Thompson, sulkey, commended; Abe Smith, London, body hoop ends, 1st prize; W Usher, Toronto, invalid carriage, commended; J McBride, Strathroy, side-spring buggy, commended.

CLASS IV—THOROUGHBRED HORSES.

Best stallion, 4 years old and upwards, J White, Milton, 'Terror.' ..... $36
2nd do, Wm Hendrie, Hamilton, 'Big Sandy.' ..... 26
3rd do, Squire Farmer, Port Hope, 'Oysterman Jim.' ..... 16
Best stallion, 3 years old, John White, 'Halton.' ..... 21
2nd do, A Z Palmer, Eastwood, 'War Paint.' ..... 14
Best stallion, 2 years old, J White, 'King Tom.' ..... 15
Best yearling colt, J White, 'Chancellor Spragge.' ..... 10
Best stallion of any age, J White, 'Terror.' ..... Diploma.
Best 3 years old filly, J White, 'Moss Rose.' ..... 18
2nd do, A Z Palmer, 'Star Actress.' ..... 11
3rd do, R Wilson, Davenport ..... 7
Best yearling filly, J White, 'Fanny Wiser.' ..... 8
2nd do, J McFayden, Nobleton, 'Floss.' ..... 6
Best brood mare with foal by her side, J White ..... 21
2nd do, R Wilson ..... 14
3rd do, J White, 'Nellie Lyall.' ..... 7
Best foal of 1878, R Wilson ..... 8
2nd do, J Laurie, Malvern, 'Nancy Green.' ..... 6
3rd do, J Addison, Malton ..... 4

FRUIT.

CLASS XXXVII—PROFESSIONAL NURSERYMEN'S LIST.

Thirty varieties of apples, correctly named, 6 of each, A Mayer and Co ..... $10
2nd do, A M Smith and Co ..... 8
3rd do, Geo Leslie and Son ..... 6
Twenty varieties do, correctly named, 6 of each, A Mayer and Co ..... 6
2nd do, A M Smith and Co ..... 4
3rd do, Geo Leslie and Son ..... 2
Six varieties fall table apples, named, 6 of each, A Mayer and Co ..... 3
2nd do, Geo Leslie and Son ..... 2
Six varieties of fall cooking apples, named, 6 of each, A M Smith and Co ..... 3
2nd do, Geo Leslie and Son ..... 2
Six varieties of winter table apples, named, 6 of each, A M Smith and Co ..... 3
2nd do, David Nichol ..... 2
Six varieties winter cooking apples, named, 6 of each, A M Smith and Co ..... 3
2nd do, Geo Leslie and Son ..... 2
Collection 15 varieties pears, correctly named, 3 of each, A M Smith and Co ..... 10
2nd do, Geo Leslie and Son ..... 8
3rd do, John Gray ..... 6
Six varieties do, correctly named, 6 of each, Geo Leslie and Son ..... 5
2nd do, A M Smith and Co ..... 3
Collection of peaches, correctly named, 6 varieties, A M Smith and Co ..... 5
Three varieties do, 6 of each, A M Smith and Co ..... 3
Collection grapes, grown in open air, 12 varieties, 2 bunches each, named, John Holder ..... 8
2nd do, A M Smith and Co ..... 6
3rd do, Geo Leslie and Son ..... 4
Collection grapes, 6 varieties, grown in open air, 2 buuches each, correctly named, John Holder ..... 5
2nd do, A M Smith and Co ..... 3
Three varieties black grapes, grown in open air, 2 bunches each, correctly named, A M Smith and Co ..... 3
2nd do, Geo Leslie and Son ..... 2
Three varieties grapes, any other color, grown in open air, 2 bunches each, correctly named, A M Smith and Co. ..... 3
2nd do, John Holder ..... 2
Collection of grapes, 12 varieties, grown under glass, one bunch of each sort, correctly named, John Gray ..... 8
2nd do, Geo Leslie and Son ..... 6
Three varieties black grapes, grown under glass, John Holder ..... 4
2nd do, Geo Leslie and Son ..... 2
Three varieties white grapes, grown under glass, John Holder ..... 4
2nd do, John Gray ..... 2
Three varieties grapes, any other color, grown under glass, John Holder ..... 4
Heaviest bunch black Hamburg grapes, grown under glass, John Holder ..... 3
2nd do, Geo Leslie and Son ..... 2
Heaviest bunch black grapes, any other kind, grown under glass, Geo Leslie and Son ..... 3
2nd do, John Holder ..... 2
Heaviest bunch white grapes grown under glass, John Gray ..... 3
2nd do, John Holder ..... 2
Display of fruit, the growth of exhibitor, distinct from other entries, 3 specimens of each sort named, grown under glass and in open air, Geo Leslie and Son ..... 15
2nd do, A M Smith and Co ..... 10
Collection of one dozen each of 6 varieties of crabs, cultivated, Geo Leslie and Son ..... 3
2nd do, A M Smith and Co ..... 2

CLASS XXXVIII.—FRUIT (Continued.)

Six Belle Lucratif, P C Servos ..... $2 00
2nd do, H Brown ..... 1 00
Six Duchesse d'Angouleme, G J Miller ..... 2 50
2nd do, H J Brown ..... 2 00
3rd do, W T Taylor, Rochester ..... 1 50
4th do, R M Griffith ..... 1 00
Six Beurre Bosc ..... 2 00
2nd do, G J Miller ..... 1 00
Six Beurre d'Anjou, W T Tay or ..... 2 50
2nd do, H Brown ..... 2 00
3rd do, Saml Woodley ..... 1 50
4th do, G J Miller ..... 1 00
Six Beurre Clairgeau, H J Brown ..... 2 00
2nd do, E C Fernside ..... 1 00
Six Beurre Superfine, J McCrae Ross ..... 2 50
Six Beurre Hardy, P C Dempsey ..... 2 50
2nd do, J McCrae Ross ..... 2 00
Six Goodall, G J Miller ..... 2 00
2nd do, J Walker ..... 1 00
Six Beurre Gris d'Hiver Nouveau, G J Miller ..... 2 00
2nd do, P C Dempsey ..... 1 00
Six Doyenne Boussock, P C Dempsey ..... 2 00
Six Grey Doyenne, H J Brown ..... 2 00
2nd do, G J Miller ..... 1 00
Six Sheldon, W Calder ..... 2 00
2nd do, G J Miller ..... 1 00
Six Swan's Orange, W W Tattle ..... 1 00
Six Winter Nelis, W T Taylor ..... 2 50
2nd do, G J Miller ..... 2 00
3rd do, H Marshall ..... 1 50
4th do, John Freed, Hamilton ..... 1 00
Six Glout Morceau, John McCarter, Toronto ..... 2 00
Six Vicar of Winkfield, P C Servos ..... 2 00
2nd do, G J Miller ..... 1 00
Six Easter Beurre, J Walker ..... 2 00
2nd do, G J Miller ..... 1 00
Six Mount Vernon, P C Dempsey ..... 2 00
2nd do, J McCrae Ross ..... 1 00
Six of any other variety of fall pear, H Marshall ..... 2 00
2nd do, Jno McCarter, Toronto ..... 1 00
Six of any other variety of winter pear, J Walker ..... 2 00

CLASS XXXIX.—FRUIT—GENERAL LIST—(Continued.)

Professional Nurserymen excluded. Competitors can make only one entry, and receive only one premium in each section.

PLUMS, PEACHES, GRAPES, ETC.

Best collection six varieties plums, green or yellow; correctly named, six of each, R J Homes, Hamilton ..... $4
2nd do, Geo Sturgeon, Kincardine ..... 3
3rd do, Gilchrist Bros, Guelph ..... 1
Best collection six varieties plums, red or blue, correctly named, six of each, Gilchrist Bros ..... 4
2nd do, R J Homes ..... 3
Best twelve Bradshaw, Geo Sturgeon ..... 2
2nd do, Gilchrist Bros ..... 1
Best twelve Lombard, Noah Sunley ..... 2
2nd do, Geo Sturgeon, Kincardine ..... 1
Best twelve Washington, Geo Sturgeon ..... 2
Best twelve Victoria, Gilchrsst Bros ..... 2
Best twelve Huling's Superb, Geo Sturgeon ..... 2
Best twelve Coe's Golden Drop, H Brown ..... 2
2nd do, R J Homes ..... 1
Best twelve Yellow Egg-Plums, H Brown ..... 2
2nd do, Geo Sturgeon ..... 1
Best twelve Smith's Orleans, Noah Sunley ..... 2
Best twelve Green Gage, R J Homes ..... 2
2nd do, Noah Sunley ..... 1
Best twelve McLaughlin, Geo Sturgeon ..... 2
Best twelve Pond's Seedling, J Russell, Goderich ..... 2
2nd do, Geo Sturgeon ..... 1
Best twelve dessert plums, 1 variety, correctly named, Noah Sunley ..... 2
2nd do, R J Homes ..... 1
Best twelve cooking plums, 1 variety, correctly named, Geo Sturgeon ..... 2
2nd do, Gilchrist Bros ..... 1
Best seedling plums, Geo Sturgeon ..... 2
2nd do, Noah Sunley ..... 1
Six varieties of peaches, correctly named, 6 of each, H J Brown ..... 4
2nd do, Robert Currie, Niagara township ..... 2
3rd do, R M Griffith ..... 1
Six late Crawfords, H J Brown ..... 2
2nd, R M Griffith ..... 1
Six peaches, any other variety, correctly named, R M Griffith ..... 2
2nd do, A H Pettit ..... 1
Six peaches, white flesh, any other variety, correctly named, H J Brown ..... 2
2nd do, Robert Currie ..... 1
Six peaches, yellow flesh, any other variety, correctly named, A H Pettit ..... 2
2nd do, R M Griffith ..... 1
Six seedling peaches, A H Pettit ..... 2
2nd do, H Marshall ..... 1
Collection of grapes, grown in open air, 12 varieties, 2 bunches each, Samuel Woodley, Hamilton ..... 3
Six varieties of grapes (open air), two bunches of each, Samuel Woodley, Hamilton ..... 3
2nd do, W Young, Hamilton ..... 2
3rd do, W A Smith, Brantford ..... 1
Three bunches Concord grapes, Jas R Cook, Hamilton ..... 2
2nd do, Samuel Woodley, Hamilton ..... 1
Three bunches Delaware, W Young, Hamilton ..... 2
2nd do, Geo Taylor, Scarboro ..... 1
Three bunches Adirondac, T H Parker, Woodstock ..... 2
Three bunches Diana, R Young ..... 2
2nd do, W Young ..... 1
Three bunches Creveling, Geo Taylor ..... 2
2nd do, Samuel Woodley, Hamilton ..... 1
Three bunches Rodgers' 4, W A Smith ..... 2
2nd do, W Young ..... 1
Three bunches Rodgers' 3, Saml Woodley ..... 2
Three bunches Rodgers' 19, Saml Woodley ..... 2
2nd do, E C Fernside, Hamilton ..... 1
Three bunches Rodgers' 44, Saml Woodley ..... 2
Three bunches Eumelan, Samuel Woodley ..... 2
2nd do, Geo Taylor ..... 1
Three bunches Hartford Prolific, Jas R Cook ..... 2
2nd do, Saml Woodley ..... 1
Three bunches Iona, Saml Woodley ..... 2
Three bunches Isabella, R J Homes, ..... 2
Three bunches Allen's Hybrid, Saml Woodley ..... 2
2nd do, W Young, Hamilton ..... 1
Three bunches of any other variety, Saml Woodley ..... 1
2nd do Robert Young ..... 2
Two bunches black Hamburg, T H Parker, Woodstock ..... 3
2nd do, H Brown ..... 2
3rd do, Thos Beal, Lindsay ..... 1
Two bunches black grapes, any other variety, T H Parker ..... 3
2nd do, Ed A Scadding, Toronto ..... 2
3rd do, Thos Beal ..... 1
Two bunches white grapes, grown under glass, correctly named, Ed A Scadding ..... 3
2nd do, T H Parker ..... 2
3rd do, do ..... 1
Six nectarines, named, J Beaty, Parkdale ..... 3
2nd do, J M Hirschfelder, Toronto ..... 2
Six quinces, John Tisseman, Chatham ..... 2
2nd do, W T Taylor, Rochester ..... 1
Green flesh melon, C E Brown, Mimico ..... 2
2nd do, Jas S Preston, Trafalgar township ..... 1
Red or scarlet flesh melon, Francis Peck, Amherstburg ..... 2
2nd do, J C Stotts, Markham ..... 1
Water melon, J C Stotts ..... 2
2nd do, C E Brown ..... 1
Citron, Geo Cooper, Leslie ..... 2
2nd do, Francis Baby, Lambton Mills ..... 1
Three clusters uncultivated native wild grapes, Francis Peck ..... 2
Greatest variety native wild crab, 12 each, C M Husberger, Jordan ..... 2
Three varieties cultivated crab, 12 each, G J Miller ..... 2
2nd do, Thos Keyes, Grantham ..... 1
Largest collection cultivated crabs, E C Fernside ..... 4
2nd do, R M Griffith ..... 2
3rd do, (extra), G J Miller ..... 2

SIR,—Could you or any of your numerous readers give a recipe for sheep that have a dry cough, and oblige. F. W., Sharonville.

[The causes of coughs are so numerous that different treatment is required. Your animals may have been overfed for exhibitions, or they may have been running on low, damp pastures. Perhaps musty feed has been used, or the animals may have been over-heated and then chilled. If the animals are of only common value and in good order, kill them. There are pastures that will fatten sheep quickly and will affect their lungs. Should your sheep be choice breeding animals, give them moist food and comfortable quarters. Do not allow them to be exposed to chilling rains. For a general beneficial plan, put a board or two in the field, smeared with tar, and salt sprinkled on the tar. Tar is one of the best remedial substances that can be given for coughs.]

STOCK SALE.—The Western Stock Association will sell Shorthorns, Cotswolds and Berkshires at Bow Park, near Brantford, on Thursday, Oct. 31. Send for a catalogue. See advertisement.

## Minnie May's Department.

My Dear Nieces,—We have seen some families so intensely practical, and have such a high regard for common sense, that they are inclined to devote all their attention to the matter-of-fact, necessities of life, to the exclusion of its luxuries—forgetting that there are other things besides food and drink, house and raiment, which are needed if we would not only exist but really live. At all events, is is certain that there are comparitively few persons who might not, with advantge, cultivate the fine arts more than they do—music for instance—how much more of it we might have in our homes, to advantage,—it would enliven the monotony of some homes where existance now is a mere treadmill. Dear nieces you must remember whatever can help to make home attractive, and to strengthen family ties should be sought after as a great good. Music in a family accomplishes this in an eniment degree—an hour or so spent daily together in musical recreation will be the happiest time of the day, and always will be a sweet rememberance of home. How many parents have had occassion to lament in after life that during the youth of their children they did not make the necessary efforts and sacrifices to render home attractive, and so lost the benefit of cultivated affection, and incurred the great evil of baneful amusement from away found home. We have no sympathy for the well-to-do father who declares that the best piano forte for his daughters to play upon is a sewing machine or a washing machine. These are good in their places and for their purposes—but an organ, a piano forte, harp, or guitar has a higher mission and usefulness.

Minnie May.

## RECIPES.

SPICED APPLES.

Eight lbs. of apples, after being peeled and cored, 4 lbs. of sugar, 1 qt. vinegar, 1 oz. each of stick cinnamon and whole cloves. Boil the vinegar sugar and spice together, then put on the apples and boil till tender, take out the apples and boil the syrup till thick, then pour over the apples.

TOMATO MUSTARD.

One peck ripe tomatoes; wipe them clean, taking out the stalks; boil one hour with five red peppers; then strain them through a colander, rubbing well through with your hands. Add half a pound of salt, three tablespoons black pepper, one ounce root ginger, one ounce allspice, one ounce cloves; the spices must be unground; three large onions; then boil for one hour and strain through a colander; when cold add one-quarter pound mustard and one-half pint best vinegar. Bottle for use.

YELLOW PICKLE.

To each gallon of vinegar take a quarter of a pound of brown mustard seed, two ounces of long pepper, two of black pepper, two of garlic, one of tumeric, quarter of an ounce of mace, half a pound of salt and a few roots of horseradish. Let the salt and spice be well dried, and put them into the vinegar cold. Gather your vegetables on a dry day, strew over them a little salt, and let them stand two or three days; then put them on a hair sieve, either in the sun or by the fire, to dry. Put them in a large jar with the vinegar, and let them stand by the fire for ten days; it must not, however, be allowed to become any hotter than new milk.

SWEET PICKLES.

Twelve pounds of fruit, six pounds of sugar and a quart of cider vinegar; cloves and cinnamon. Let the fruit boil in the above till done; take out, put carefully on a dish, let the syrup boil down; then put in fruit again and boil a few minutes; fill jars and seal with tissue daper dipped in white of egg.

PRESSED CHICKEN.

I have noticed when traveling on the cars that many of the passengers who carry their lunch generally have a liberal supply of chicken. Now, there is no objection to the fowl itself, but there is to the shape in which it is often taken. When there are so many good recipes for "pressed" and "jellied chicken," it seems as if the bones need not be carried. I was once obliged to occupy a seat on the cars with a stranger, who entertained me for a half hour by gnawing the wings and legs of a fowl. At the same time another person who sat directly opposite was engaged in the like occupation. If chicken be prepared according to the accompanying recipe, travelers need not be aware of the nature of each other's luncheon. Cut up a young fowl and put it in a kettle, with one coffeecupful of cold water. Sprinkle with salt and pepper, and cover closely. When tender, pick the meat off the bones, and chop into bits the size of peas, and pack in a quart bowl. Thicken with flour the little juice that remains in the kettle, and pour over the chicken. Put a plate on it while warm, and a heavy weight on the plate. It is necessary to cook the fowl in but little water, otherwise it will not jelly. It is best not to cut pressed chicken until the day after it is made. Place thin layers of it between thin slices of bread and press firmly together. To be eaten without separating, like sandwiches.

PEACH MARMALADE.

Peaches too ripe for preserving answer for marmalade. Pare and quarter them, allowing three-quarters of a pound of sugar to each pound of fruit, and half a pint of water to each pound of sugar. Boil one hour and a half, stirring constantly.

**Celosia Cristata**—*(Fire-feathered).*

The Celosias are interesting and singular annuals, and when well grown from seed of good quality never fail to please the grower and attract the attention of his friends. In Europe they are grown in pots for floral exhibitions, and also for table decorations, but in most parts of America they grow so freely in the open ground that this treatment is not at all necessary. There are several varieties of Celosias, the above being very handsome, producing the greatest profusion of beautiful feathers, like plume-shaped spikes of flowers. If gathered when young, they are valuable for winter bouquets. They grow freely in rich, loamy soil, but succeed best when started in a hot-bed.

PEACH JELLY.

For a table ornament nothing is more elegant. Dissolve in sufficient water one oz. of isinglass; strain it, havle one dozen large peaches and pare them; make a syrup of one pound of fruit sugar and half a pint of water. Into this put the peaches and kernels; boil gently for fifteen minutes, then place the fruit on a plate and cook the syrup ten minutes longer; add to it the juice of three lemons and the isinglass. A pyramid mould is very pretty for this. Fill part full of jelly, and when set, put in one-quarter of the peaches. Place on ice and let it harden; add more jelly, harden, etc., until full. Let the base of the mound be jelly.

BAKING POWDER.

L. R. asks "If she cannot purchase materials and make her own baking powder?" Certainly she can. The following formula is taken from *The Scientific American:* Powder and dry separately by gentle heat one-half pound tartaric acid, three-fourths of a pound of pure bicarbonate of soda and three-fourths of a pound of potato farina. Mix dry, pass through a seive, and preserve from air and moisture.

STUFFED CABBAGE.

Cut a large fresh cabbage in two and take out the heart: fill the vacancy with stuffing made of cooked chicken or veal, chopped very fine, highly seasoned and rolled into balls with yolk of egg. Tie the cabbage firmly together and boil in a covered kettle two hours. This is a delicious dish and is useful in using up cold meats. Mrs. W. A. C.

CANNED GRAPES.

Take Concord grapes when ripe and stem without breaking. Allow a little more than a quarter of a pound of sugar to each pound of fruit; for each can of fruit make a syrup with about a quart of water, and allow the fruit just to boil in it. Put the grapes into cans before they crack open, and seal them tightly. Johnnie.

RICE JELLY FOR THE SICK,

Mix three-quarters of a pound of rice with one-half pound of sugar, and cover with water. Boil until it becomes thick, then strain and flavor to suit. Give it when cold.

PIGEON PIE.

Make a fine puff paste; lay a border of it around a large dish, and cover the bottom with a veal cutlet, or a very tender steak free from fat and bone; season with salt, cayenne pepper and mace, Prepare as many pigeons as can be put in one layer of the dish; put in each pigeon a small lump of butter, and season with pepper and salt; lay them in the dish breast downwards, and cut in slices a half dozen of hard boiled eggs, and lay in with the birds; put in more butter, some veal broth, and cover the whole with crust. Bake slowly for an hour and a half.

STEAMED BREAD AND BUTTER PUDDING.

Place slices of bread and butter in the bottom of a pudding dish, a layer of sliced apples with sugar and nutmeg, another layer of bread and butter, then one of apples, sugar and spice, until the dish is full, having bread and butter at the top, buttered side down. Cook thoroughly in a steamer.

Miss E. D.

PEAR-BUTTER.

This may either be used as soon as made, or put away for winter use, and will be found to have a richer flavor than apple-butter, and more lively than peach. The knotty, imperfect fruit can be used, of every variety excepting the seckel, which is too sugary. Cut the fruit into small pieces, removing the core, skin, and all imperfections; allow a quarter of a pound of light brown sugar to each pound of the fruit, and half a pint of cold water to every two pounds of the pears; do not add the sugar until they have cooked an hour or so; then put it in, with a quart of cider to each two pounds of sugar, and let all cook very slowly until a marmalade, which will be in four hours. If it seems too dry while cooking, add more cider.

TO PICKLE ONIONS.

Select small silver-skinued onions, remove with a knife the outer skins, so that each onion will be perfectly white and clean. Put them for three days into brine that will float an egg; bring vinegar to the boiling point, add a little mace and whole peppers, or sprinkle with cayenne, adding bits of horseradish and cinnamon bark with a few cloves, pour it hot over the onions, first draining them well from the brine.

## Carpet Sweepers.

M. R. S. asks concerning the value of carpet sweepers as labor saving inventions and if they are worth the money they cost. As labor-savers carpet sweeps are deserving high rank: they remove dust and dirt from the floor without creating any dust in the air and thus saving the labor of dusting the room and the annoyance and unwholesomeness of the clouds a broom raises. They are easier to use than a broom; in fact to one unaccustomed to have a carpet sweeper, it becomes a necessity, and is fully worth the three dollars it costs, for it lasts with care for years and worn parts may be renewed at trifling expense. We have a sweeper and couldn't be persuaded to try to get along without one.

## That Boy.

BY GEORGE COOPER.

Is the house turned topsy-turvy?
  Does it ring from street to roof?
Will the racket still continue,
  Spite of all your mild reproof?
Are you often in a flutter?
  Are you sometimes thrilled with joy?
Then I have my grave suspicions,
  That you have at home—that boy.

Are the walls and table hammered?
  Are your nerves and ink upset?
Have two eyes so bright and roguish,
  Made you every care forget?
Has your garden-bed a prowler,
  Who delights but to destroy?
These are well-known indications
  That you have at home—that boy.

Have you seen him playing circus
  With his head upon the mat,
With his head in mid-air twinkling—
  For his audience, the cat?
Do you ever stop to listen,
  When his merry pranks annoy—
Listen to a voice that whispers,
  You were once just like—that boy.

Have you heard of broken windows.
  And with nobody to blame?
Have you seen a trousered urchin
  Quite unconscious of the same
Do you love a teasing mixture?
  Of perplexity and joy?
You may have a dozen daughters,
  But I know you've got—that boy.

## A Sermon to Girls on Cooking.

Good advice to girls and boys is always abundant, and, we may add, a cheap article in the market, and perhaps this is one reason why it is not more frequently heeded by those in need of it. But here is another excellent piece of advice to girls, taken from a religious paper :—

Cooking classes have been popular among young ladies of late years. But there is no cooking class which quite equals in opportunity for excellent information that which you may find at home. Presuming that I am talking to a girl who has just left school, I advise you to make use of your leisure in taking lessons from your mother. There is an absolute, splendid feeling of independence in knowing how to make light, sweet, substantial bread. Then try your hand at biscuit, muffins, cornbread, toast, and all other different forms into which breadstuffs may be blended. Toast seems a simple thing enough, but it does not deserve the name. Gruel, a necessity of the sick room, is often a hopeless mystery to women who have not the vaguest idea of how it is evolved from the raw material. After you have mastered the bread question, try meats and vegetables. Any bright girl who can comprehend an equation or formulate a syllogism, can overcome the difficulties which beset her when learning to cook. Lucent syrups, golden cake, delicately browned bread, quivering jellies, melting cream and the whole set of material things glorified, because made for love's sake, and for the good of one's dear ones, are fit expressions for any woman. The charm of this accomplishment lies in the fact that it imparts to its owner a gratifying sense of power; it bestows on her, too, the power of blessing and resting those she loves best. Wherever the cook goes she takes her welcome along. One may tire of the sweetest singing, of the lovelist poetry, of the finest painting, and of the most witty conversation, but of good cooking never.

Yet I would be sorry to have you content to be only a cook, only a domestic machine. That is not my meaning or intention. Be artist, poet, inventor, and well-bred women; be the most and best you can, and add, as a matter of course, ability to keep house well, and do all that good housekeeping includes.

## Wait!

Wait, husband, before you wonder audibly why your wife don't get along with the household responsibilities "as your mother did." She is doing her best—and no woman can endure that best to be slighted. Remember the long, weary nights she sat up with the little babe that died; remember the love and care she bestowed upon you when you had that long fit of illness. Do you think she is made of cast iron? Wait—wait in silence and forbearance, and the light will come back to her eyes the old light of the old days.

Wait, wife, before you speak reproachfully to your husband when he comes home late, and weary, and "out of sorts." He has worked hard for you all day— perhaps far into the night; he has wrestled hand in hand, with care, and selfishness, and greed, and all the demons that follow in the train of money-making. Let home be another atmosphere entirely. Let him feel that there is no other place in the world where he can find peace, and quiet, and perfect love.

## Selecting Meats.

In selecting beef to roast, if it be for a small family, the rib is by far the best and most tender cut; have some of the bone removed, then make your butcher skewer the beef. The best beefsteak for broiling is porter-house. The best beef for *a la mode* is the round; have the bone removed, and trim off all the gristle. For corned beef the round is also the best. For a mutton roast choose the shoulder, the saddle, or the loin and haunch. The leg should be boiled. Small rib chops are the best for broiling; those cut from the leg are generally tough. Mutton cutlets to bake are taken from the neck. For roast veal the loin, breast, or shoulder is good. Veal chops are best for frying; cutlets are more apt to be tough. In selecting beef take that which has a loose grain, easily yielding to pressure, of a dark red color, smooth, with whitish fat; if the lean is purplish and fat is yellow it is poor beef. Grass-fed is the lightest, ox the best, and next the heifer. Perhaps the nicest mutton roast is a small leg, the bone taken out, and the cavity stuffed with forced meat. The best beef roast is (for three) about two and a half or three pounds of porter-house. Sirloin ranks next. A rump roast is very nice. Two or three pounds is a great plenty for three. In chops, I think that from the hind leg of mutton best, unless you can get a "meaty" sirloin. The same in pork; about one and a quarter to one an a half pounds is sufficient; beefsteak about the same quantity. Porter-house is cheaper than sirloin, having less bone. Rump steak, and round, if well pounded to make them tender, have the best flavor.—*Springfield Republican.*

## "Chairs to Mend!"

The art of doing small things well has a good illustration in the humble chair-mender of the London streets, who is also one of the most interesting of out-door tradesmen.

He carries all his implements and materials with him. A very much worn chair is thrown over one arm as an advertisement of his occupation, and it is needed, for his cry, "Cha-ir-s to men-n-nd," is uttered in a melancholy and indistinct, though penetrating, tone. Under the other arm he usually has a bundle of cane, split into narrow ribbons.

His look is that of forlorn respectability; his hat is greasy, and mapped with so many veins, caused by crushings, that it might have been used as a chair or, at least, a foot-stool; around his neck he wears a heavy cloth kerchief, and his long coat of by-gone fashion reaches nearly to his ankles, which are covered by shabby gaiters. He walks along at a very gentle pace and scans the windows of the houses for some sign that his sevices are wanted.

Perhaps business is dull, but in the neighborhoods where there are plenty of children he is pretty sure to find some work. Cane-seated chairs are durable, but they will not stand the rough usage of those little boys and girls who treat them as step-ladders and stamp upon them. It often happens that a neat English house-maid appears at the area railings with a chair that has a big, ragged hole in the seat, through which Master Tommy has fallen, with his boots on, in an effort to reach the gooseberry jam on the pantry shelf.

Master Tommy probably looks on while the repairs are being made, and is much interested by the dexterity with whch the mender does his work. The old and broken canes are cut away, and the new strips are woven into a firm fabric, with little eight-sided openings left in it. The overlapping ends of the ribbons are trimmed with a sharp knife, and the chair seat is as good as new.

It seems so easy that Tommy thinks he could have done it himself; but when he experiments with a slip of cane that the mender gives him, he finds that chair-mending is really a trade that must be learned.

Some chair-menders are blind men, and it is still more interesting to watch them at their work. The plaiting of the canes is done as unerringly by their unseeing fingers as by the men who can see, and with wonderful quickness. Occasionally the business is combined with that of basket-making, and should we follow poor old "Chairs-to-mend" home, we might discover his family busy weaving reeds and willowy branches with the same cleverness the father shows in handling the canes.—*Alex. Wainwright, St. Nicholas for October.*

## Boxes on the Ear.

The blindness of the late King of Hanover was occasioned, it is understood, by an accidental and by no means violent blow upon the eye. Scarcely a day passes, we believe, without some schoolmaster (or schoolfellow in natural imitation of his master) giving a lad a smart "box" upon the ear. Few persons would be bold enough to choose this part upon which it was expedient to inflict a violent blow by way of moral education, but there is apparently no end to the numbers who select an organ upon which violence is liable to be attended with much more dangerous results. For not only is deafness caused by "boxes," which ruptures (as they continually do) the drum of the ear, but the inflammation of the internal cavity, which is so frequent a result, may be followed by diseases of the bone, giving rise to absess of the brain, and having a fatal termination. Medical men alone can be fully aware how fruitful a source of suffering and danger is represented by the box upon the ear. There are, for example, under observation at the present moment two schoolboys who have been the victims of such an assault. Surely schoolmasters ought to have learned, long ere this, the danger of a mode of personal chastisement that has apparently usurped the place of others which, if more disgusting, were not attended with an equal amount of peril.—*Lancet.*

## This, I Whisper.

You all know as well as I do that a white nubia never looks well after it is washed, no matter how carefully you toss, and touch and puff it up in your palms in the foam-white suds. Well, a lady told me a secret one day last week, and said I must never, never tell it, but I hurried and changed the conversation, and thus dodged a promise that otherwise would have been binding.

And this is the secret, that you can keep your nubias, and soft white fleecy wear, including babies' saques, clean and nice without washing. Just put dry flour on them and pat it in between your hands, and then sprinkle it over and fold them up, and end the job by sprinkling over enough to cover quite well. Let then lie eight, ten or twelve hours, and then lift them and, shake off lightly the flour which will be found with all the dirt in it. This is an admirable plan. The tassels on nubias thus preserve their wonderful lightness and fleeciness. There is a great deal of poetry in a dainty white flake of a nubia, and I know you will all be as glad to hear this as I was.

Well—there now! women musn't tell me secrets, that by right of our womanhood belong to every mother's daughter of us. I never could hide a good story, or keep a secret, or make my face behave and not laugh.

Another item of news. One of the prettiest plumes that ever nodded, I saw lately, and it was made by the young lady who wore it. She took a flat piece of cap wire—the kind used in making old ladies' caps—and sewed upon it the tips of those rich bronze cock feathers, and it was very stylish indeed.

Nodding feathers of this kind are pretty for bright sparkling brunettes. They seem specially appropriate for such girls, while a delicate fair-haired blonde would appear "as lacking something."

"Biddy, bring me some salt." "Sure an' I will, your riverence." Forthwith appeared Biddy with the article in her hand. "Never again bring me anything in your hand," said the master; "you should have brought it on a plate." The evening meal being over, the bell was again rung and the faithful domestic instantly appeared. "I want my slippers." Biddy went and returned bearing in her hand a plate, upon which were the priest's slippers.

## Troubles in High Life.

Two miniature mothers at play on the floor
Their wearisome cares were debating,
How Dora and Arabelle, children no more,
Were twice as much trouble as ever before,
And the causes each had her own cares to deplore
Were, really, well worth my relating.

Said one little mother: "You really don't know
What a burden my life is with Bella!
Her stravagant habits I hope she'll outgrow.
She buys her kid gloves by the dozen, you know,
Sits for *cartes de visite* every fortnight or so,
And don't do a thing that I tell her!"

Those stylish young ladies (the dollies, you know,)
Had complexions soft, pearly and waxen,
With arms, neck and forehead, as white as the snow,
Golden hair sweeping down to the waist and below,
Eyes blue as the sky, cheeks with youth's ruddy glow,—
Of a beauty pure Grecian and Saxon.

"Indeed!" said the other, "that's sad to be sure;
But, ah," with a sigh, "no one guesses
The cares and anxieties mothers endure.
For though Dora appears so sedate and demure,
She spends all the money that I can secure
On her cloaks and her bonnets and dresses."

Then followed such prattle of fashion and style,
I smiled as I listened and wondered,
And I thought, had I tried to repeat it erewhile,
How these fair little Israelites, without guile,
Would mock at my lack of their knowledge, and smile
At the way I had stumbled and blundered.

And I thought, too, when each youthful mother had conned
Her startling and touching narration,
Of the dolls of which I in my childhood was fond,
How with Dora and Arabelle they'd correspond,
And how far dolls and children to-day are beyond
Those we had in the last generation!

## Does Her Own Work.

Does she? What of it? Is it a disgrace to her? Is she the less a true woman, less worthy of respect than she who sits in silk and satin and is vain of fingers who never knew labor? We heard this sneer a few days ago, and the tone in which it was uttered betokened a narrow, selfish, ignoble mind, better fitted for any place than a country whose institutions rest on honorable labor as one of the chief corner-stones. It evinced a false idea of the true basis of society, of true womanhood, of genuine nobility. It showed the detestable spirit of caste, of rank, which a certain class are trying to establish; a caste whose sole foundation is money, and so the meanest kind of rank known to civilization. Mind, manners, morals, all that enter into a grand character, are of no account with those social snobs; position in their stilted ranks is bought with gold, and each additional dollar is another round in the ladder by which elevation is gained.

In matter of fact, is it more dishonorable for the merchant's wife to do her own work than for the merchant to do his? For her to look after her house than for him to look after his store? Or is a woman for nothing only to be "pleased with a rattle, tickled with a straw?" It seems to be the height of ambition in some circles to be, or profess to be, not only "above" work, but even ignorant of how work is to be done; and if the table is poorly spread, and if the housekeeping is at sixes and sevens, the "help" receives maledictions without stint, but the "lady" takes none of the responsibility upon herself. She look into the kitchen! She know how bread should be made, or steak broiled! She know when the flour is out or the sugar in! Absurd! "Help" may be bad enough, but what interest can the girl in the kitchen feel in the household economy, if the lady in the parlor has none? If mistress neglects all domestic duties, will maid be thoroughly conscientious? Will the husband's business go on well if he neglects it? And why should that of the wife prosper under her lack of responsibilty?

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Always leave the draft of a stove open when there is no fire in it; by this means a room can be cleansed from impure air, as the open draft acts as a ventilator.

## Good Cheer.

Why sit you down at sighing
Because 'tis dark, my friend?
A light is underlying
The gloomiest shades that blend.

That life is more complete
If it embraces all;
The sweet is always sweeter
If you have tasted gall.

Then bravely bear your crosses,
Nor closely clasp your pains,
And hid among your losses
Perhaps you may find gains.

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## Think Truly.

Think truly, and thy thought
Shall the world's famine feed;
Speak truly, and thy word
Shall be a fruitful seed;
Live truly, and thy life shall be
A great and noble creed.

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## What Most Women Need.

Discussing the difficult problem of female education, the *Nation* pertinently remarks that what most women need next after health and power of acquisition, and the confidence which springs from having acquired something, is a tolerable amount of administrative capacity. House-keeping is administration on a small scale. It includes the faculty of getting the most for one's money, and managing servants and children. If it were likely to be a man's vocation to the extent to which it is likely to be a woman's, he would undoubtedly be prepared for it by some sort of apprenticeship. He would have to learn in some subordinate capacity the proper mode of buying and preparing food, and of procuring and taking care of furniture and clothing, and of ruling servants. He would be trained to receive company by some experience of the art of entertaining, both in its material and its æsthetic aspect. No one would ever guess, however, from an inspection of an average school course, that a girl was to be the head of that most complex result of civilization, a modern household, with its thousand duties, responsibilities and relations.

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## The Tuberose.

BY MARIE S. LADD.

Some one had placed, that summer hour,
In the small hand we loved so well,
A tuberose's waxen bell—
The hand looked waxen as the flower.
Though then a child, yet as each year
Its summer hues and scents resume,
To me returns that moment dear
With this pale flower's rich perfume.
The awful picture scarce is dimmed;
I almost hear the rustling wings
Of hovering angels, and it brings
The lisping words our hearts have hymned
To mind, and swift the eye o'erflows
At odor of the tuberose.

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## HUMOROUS.

Silk Dresses.—"James, my love, perhaps—what do you think?—perhaps, maybe, you know, dear—it has just occurred to me that it might be cheaper to get a couple of silk dresses this summer—because, you see, the mulberry has blighted the silk in the south of France, and the crop will be short, and dress silks awful high next year."

"What a strain is that!" said Mrs. Partington, as she heard an air from "Lucia" sung in the highest style by a young lady where she was visiting. "Yes," was the response, "it is operatic." "Upper attic, is it?" questioned she; "I should think it was high enough to be on the top of the house."

"Maria," said a lady to a colored servant, "that's the sixth silk dress you have worn since you came to me; pray how many do you own?" "Only seven, misses." "Seven! why I don't own so many even as that." "'Spect not, misses," said the smiling darkey; "you doesn't need 'em so much as I does. You see you quality folks everybody knows is quality, but we bettermos. kind of culled pussons has to dress smart to distinguish ourselves from common niggers."

## Et Ceteras.

Stoves.—It is a great mistake that many housekeepers make—the putting away stoves early in the season. More people die in the spring than in the fall on account of changes in the weather, and the reason is obvious. In the fall, expecting the cold to increase steadily, we wrap ourselves warmly and have fires in our houses as soon as they are needed. In the spring, continually hoping for warm weather, we lay aside too soon our furs and flannels, put away our stoves, and act as though summer had come. But not until the 21st of June (according to the almanac) does summer begin. Not until about that time is it safe to put on summer clothing. Those who live along the seaboard, the lake shore, and in mountainous and hilly regions, need facilities for warming their rooms during the entire summer, and for want of them often suffer serious illness. It is safe to wear flannel the year round—to invalids, elderly people and children it is indispensable. A cold contracted in summer is the hardest of all colds to cure; but one is almost assured against it by wearing flannel.

Don't wash your vegetables until just before you are ready to cook them. At least one-quarter of the value in sweetness, vivacity and aromatic element is lost by the too common practice of having washed clean of the natural earth adhering to its fibres and surface during the growth, and which, when roughly dug, is put into the cellar or pit of the countryman for winter keeping. Did that countryman wash each beet, carrot, potato, etc., as is generally practiced for sale to the dealer, and by the consumer desired, he would never be able to keep his produce a single month. The receiver of a clean-washed vegetable, according to the new established law of refinement, never yet ate of a good natural flavor, and these same people, if once they leave their city homes and go into the country farm-house, rarely fail to notice the superiority of vegetables. It is not because of the better knowledge of cookery, but it is from the fact that the earth is a preservative and absorbent of the volatile element of the root, which, as soon as washed, evaporates rapidly into the air and is lost.

Children, what do you do to make home pleasant? Children are too apt to regard the keeping of a home as a duty incumbent upon their parents, without realizing that they have as much to do with its formation almost as the parents themselves. Home is not perfect without the help of every member of the household. It has been beautifully likened to a harp—if all the strings are attuned in harmony, sweet melody is the result; but if one is out of tune, it jars harsh discord upon the senses. The parents' duty is to furnish a home where the comforts of the body are provided, where the mind is educated and the soul is trained and guided by pure teachings and holy example. The children's duty is to respond to the efforts of their parents—to echo, as it were, the attention and affection shown them.

Aspiration is no enemy to contentment. A man may aspire, he may hope to advance in worth, power, wealth and knowledge, and yet be quite content meanwhile. A bird that sits patiently while it broods its eggs, flies bravely afterwards, leading up its timid young. So he who desires to be a better farmer, citizen or individual, may work and toil, may study and and plan in that direction, yet remain content so long as he is doing justice to present opportunities. There is a wonderful difference between true contentment and laziness; the one seeks the legitimate use of all its faculties, the other sinks mind and soul in animal ease and pleasure.

To prevent dust rising from a carpet when being swept, sprinkle coarse dry salt over it. If the carpet is much soiled, rub the salt well into the fibers with the broom; then give a thorough sweeping, going over the work several times. The result will be satisfactory, as it gives a fresh look to colors dimmed by dust, and a sweetness most desirable. We consider salt far ahead of tea-grounds or a wet broom in cleansing a dusty carpet. The salt can be gathered up after it has served its purpose, and with the dust can be cast on to the asparagus bed. As asparagus requires salt for food, we "kill two birds with one stone."

To keep insects out of birdcages tie up a little sulphur in a silk bag and suspend it in the cage. For mocking-birds this is essential to their health, and the sulphur will keep all the red ants and other insects from the cages of all kinds of birds. Red ants will never be found in a closet or drawer if a small bag of sulphur be kept constantly in these places.

## Uncle Tom's Department.

MY DEAR NIECES AND NEPHEWS,—The glorious autumn season has begun, and the time for great perseverance and hard study is here. Our evenings are rapidly growing longer. We have now three hours after sundown ere it is time to go to rest. This is one golden time of the year for young pupils, whether at home or at school. Those at school have such guidance that they are at no loss how to employ to the best advantage every moment of their time. Some parents say that the hours at school are long enough to study, and so they are for young or delicate pupils; but for students to make rapid progress it is certainly quite necessary to study their lessons at home in the evening. It is well to have a special room for study, so that they can give full attention to their books. It is impossible for some boys and girls to give their minds to study when in a room where there is conversation and merriment. And now we must ask a question of parents, or brothers and sisters: Do you remember how very difficult an easy lesson would sometimes appear to you?—Well, just so it seems to our nephews and nieces; whereas if a little assistance were given by a parent, brother or sister, lessons would be made easy to their little troubled minds.

UNCLE TOM.

### PUZZLES.

86—THREE DIAMONDS.

1.—A consonant. 2—A kind of carriage. 3—A well-known river of Italy. 4—A pecious stone. 5—In circumnavigation. 1—In inconspicuous. 2—A Turkish name. 3—A spice. 4—A climbing plant. 5—In herbalist. 1—In iniquity. 2—A girls name. 3—A county in Asia. 4—Purpose. 5—In Niagara.

87—DOUBLE WORD-SQUARE.

Across:— 1. Departed. 2. Declare. 3. Look askance. 4. Terminates. Down:—1. High wind. 2. Part of a stove. 3. Want. 4. Mistakes.

88—ENIGMA.

My first is in boy, but not in lad;
My second is in merry, but not in sad;
My third is in stripe, but not in streak;
My fourth is in proud, but not in meek;
My fifth is in little and also in tall;
My sixth in none, but not in all;
My whole a trusty guide is found;
For animals men ride around.

JENNIE SHAW.

89—EASY DECAPITATIONS.

1. Behead a kind of sword, and leave a fluid for burning. 2. Behead a sharp-pointed weapon, and leave a fruit. 3. Behead to touch, and leave a kind of fish. 4. Behead a vehicle used in winter, and leave a shelf. 5. Behead a kind of deer, and leave a game that boys play. 6. Behead an ancient war implement, and leave a unit. 7. Behead animal's of a common kind, and leave a sort of grain. 8. Behead to pull, and leave sore. 9. Behead the name of a vessel, and leave a narrow passage. WALTER A.

90—TRANSPOSITIONS.

1. Change artful into a confusion. 2. Change a Persian king into a mixture. 3. Change a cutter into listeners. 4. Change a cheat into musicians. 5. Change repaired into healed. CYRIL DEANE.

91—EASY BEHEADINGS.

1. Behead to strike, and leave what all must do. 2. Behead what children like, and leave a man's nickname. 3. Behead two pronouns, and leave two other pronouns. 4. Behead an article of furniture, and leave capable. 5. Behead a color, and leave a writing material. 6. Behead something belonging to flowers, and leave a coin. 7. Behead a part of the head, and leave what comes from the clouds. 8. Behead another color, and leave a kind of stove. 9. Behead a sport, and leave a girl's name. 10. Behead a part of a ship, and leave a tree. 11. Behead a kind of bird, and cave disturbance. 12. Behead an article of food, and leave a kind of tree. 13. Behead a table utensil, and leave a bird. 14. Behead to frighten, and leave anxiety. 15. Behead a toilet article, and leave to crowd. A. D. L. AND S. W.

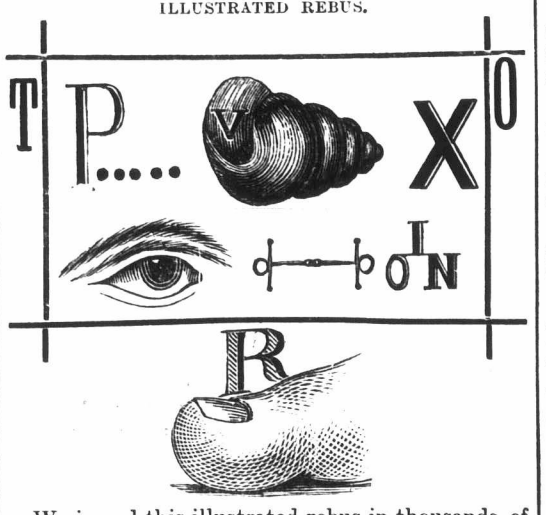
92—EASY ENIGMA.

My first is in dark, but not in light;
My second in girl, but not in boy;
My third is in peace, but not in fight;
My fourth in mourning, not in joy;
My fifth is in flowers, but not in weeds;
My sixth in kind, but not in cruel;
My seventh is in drives, and also in leads;
And my whole is a beautiful jewel.

93—EASY SYNCOPATIONS.

1. Syncopate a composite metal, and leave a fish. 2. Syncopate an article of food, and leave an ornament. 3 Syncopate a map, and leave a vehicle. 4. Syncopate a pungent spice, and leave a small bay. 5. Syncopate a wading bird, and leave a reed. 6. Syncopate a short, ludicrous play, and leave a part of the body. 7. Syncopate a domestic animal, and leave articles of clothing. 9. Syncopate a small animal, and leave to ponder. 10. Syncopate a flower, and leave a domestic animal. ISOLA.

ILLUSTRATED REBUS.




We issued this illustrated rebus in thousands of supplements at the Provincial and other exhibitions. Many attempts have been made to solve it, and many answers nearly correct, but not quite. What is it?

94—A HIDDEN QUOTATION.

In the following lines may be found a well-known quotation from a modern poet—one word in each line:—

BLIND!

It was but an hour ago;
O, hour, you seem like a year;
For slow, slow to and fro
The tick of your moments I hear.

Still hear! still smell! still touch!
O, echo of days that are dead,
Availeth a miser's clutch,
When his gold has vanished—fled.

What use in a hand that feels
And falters and seeks in vain;
Through the dull dead darkness steals
The sound of a mighty pain
Of a heart that is sorrow-slain.

* * * * * *

A year that seemed like a life;
And the voice is a voice no more!
The heart that complained of its strife
Is a heart whose troubles are o'er;
Still death gives sight as before.

### Answers to September Puzzles.

No. 76—Zaphnathpaaneah.

77.—Sottishness.

78.—Holmes. Lowell.

78.—Dip, fip, lip, hip, rip, nip.

80.—1. Table. 2. Sofa. 3. Chair. 4. Stool. 5. Whatnot. 6. Crib. 7. Tot. 8. Hat-rack. 9. Desk.

81.—1. Brown, brow. 2. Plane, plan. 3. Lathe, lath. 4. Heath, heat. 5. Hazel, haze. 6. Plume, plum. 7. Crown, crow. 8. Lunge, lung. 9. Forty, fort.

82.—Make hay while the sun shines.

83.—1. Yawning. 2. G-ape. 3. W-ant. 4. C-rate. 5. S-crape. 6. P-lace. 7. L-oaf. 8. S-hocks. 9. S-pin. 10. B-lot. 11. B-ranch. 12. S-lack.

84.—China, Italy. 1. Chili. 2. Hellespont. 3. India. 4. Nepaul. 5. Alleghany.

85.—Sunderland.

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

Thomas Bunston, E. C. Willard, Minnie Hyde, John Stevens, Maggie Blair, Francis Cooper, Jas. Rennie, Jennie E. Pembrook, Felix Gabourie, Annie Mercer, Amanda Norris, John Scott, Sarah Duffield, Elias McDonald, M. Sanburn, Susan McDondald, Maxwell Turner, Joseph Norwood, Nellie Sheffield, Gertie, Matthew Doyle, Mary Johnston, Anna E. Matthewson, Jennie Hamilton, Alice Dunn, Victor M. Sanborne, C. B. Carr, S. Sutherland, James E. Evans, Emily West, George West.

We are happy to congratulate Minnie Hyde upon her success in answering the greatest number of puzzles in September number.

### Made a Mistake in His Man.

An insurance man called into an establishment on Main street the other day, with a large account book under his arm, and walking up to the proprietor in a business sort of a way, he inquired:

"How's business—how's stock?"

"Oh, business is very, very dull," returned the tradesman. "'Pon my word, sir, I haven't got $900 in the house! Terrible dull!" and he paused and looked inquiringly at his visitor.

"Only $900?" said the insurance man in surprise.

"'Pon my soul, sir," repeated the dealer, "I don't believe there's a dollar more—look for yourself," and the man looked sad and sighed.

"Then, sir," said the insurance man, with a good deal of warmth, "how does it come that your stock is insured in our company for $4,500, eh?"

"Oh! ah! beg your pardon!" exclaimed the dealer in great confusion, "I thought you was the tax man! I was sure you was the tax-gatherer, or 'pon my soul I wouldn't a said that, when, in fact, my stock is worth fully $8,000—look for yourself, sir!"—*Cohoes Eagle*,

### Gems of Thought.

A great head has great cares.

Time does not bow to you; you must bow to time.

It is better to retrace a wrong step than to pursue a wrong course.

The heart loves repose and the soul loves contemplation, but the mind needs action.

Take care to be an economist in prosperity; there is no fear of your not being in adversity.

Most of our misfortunes are more supportable than the comments of our friends upon them.

Where the mouth is sweet, and the eye intelligent, there is always a look of beauty with a light heart.

It is not only old and early impressions that deceive us; the charms of novelty have the same power.

Friendship closes its eyes rather than see the moon eclipsed; while malice denies that it is ever at the full.

If we neglect to cultivate the habit of observation, we might as well walk through the world blindfold.

If you have a rare thought, express it in the simplest language possible. A diamond should have a plain setting.

It is not until we have passed through the furnace that we are made to know how much dross was in our composition.

The way to get credit is to be punctual; the way to preserve it is not to use it much. Settle often; have short accounts.

A fly is a very light burden; but if it were to perpetually return and settle on one's nose it might weary us out of our lives.

As by constant friction steel is kept highly polished, so by constant exercise is talent at its brightest. All our powers grow by use.

The great man is he who chooses the right with invincible resolution, who resists the sorest temptations from without and within, who bears the heaviest burthens cheerfully, who is calmest in storms and most fearless under menaces, and whose reliance on truth, virtue and Heaven is unfaltering.

## Fresh Grapes all Winter.

My father, who was an ardent lover of the "fruit of the vine" always reserved so goodly a supply of grapes for winter that "we children" scarcely regarded them as more of a luxury than we did apples, as we had them for almost daily eating. His method for keeping them fresh and wholesome, was so simple that I wonder it has not been generally adopted, especially when I read recipes for packing grapes in bran, oats, cotton, etc., etc. This was his method: The grapes after being picked, were carefully assorted, only unbroken clusters being selected for winter. In a large iron spoon beeswax was melted, and the end of the stem of the cluster which was broken from the vine dipped in the melted beeswax, forming a seal over the end, so helping to prevent the escape of freshness in it. As fast as the clusters were so sealed they were carefully laid in a basket, the inside of which had been lined with paper (newspapers were frequently used). The bunches were laid side by side in the bottom of the basket, and when the layer was completed a paper was laid over the top, and so on, a layer of grapes and a layer of paper, until the top of the basket was reached, when paper was laid on the top. So with all the baskets, when they were stored in the cool, well ventilated room until freezing weather came, when they were removed to the cellar, which was a dry one. In this way the grapes kept nicely until spring. The chief thing to be observed was to handle the bunches carefully, so that none of the grapes were broken or loosened from the stem; the next to keep them dry and cool, but entirely free from frost.

## Gathering and Keeping Fruit.

We have learned by experience that early-gathered winter apples keep the best. As soon as fruit has attained its full size, we advise that it be picked. In Central Illinois this will occur by the last of September; further north, a little earlier. A few days' neglect of this important duty may cause the permature ripening of the crop.

Apples gathered early do keep best, but it is at the expense of flavor. Our late varieties, especially the Newtown Pippin, should not be removed from the tree so long as they can safely remain without danger from frost. We have printed paragraphs about keeping fruit in sand, and here is another experience to the same effect, recorded in *The London Garden*, as occurring in England. The closing paragraph is undoubtedly true :—

He keeps fruit in this way all the year round. He has had French crabs two years old. The Catillac pear has remained sound twelve months. The fruit must be sound when stored, and the sand must be quite dry. The chief advantage of packing in sand are, the exclusion of air currents, the preservation from changes of temperature, and the absorption of moisture, which favors decay. Much will depend on the apartment in which the experiment is tried, a dry or cool one being best.

There is nothing new in the subjoined hints from an English orchardist, but they are sound and practical :—

Clean thoroughly and whitewash the fruit-room in advance of the harvest season, and allow the fresh air to purify it. Be careful not to house any imperfect specimens. Pick only when quite dry and do not handle carelessly. Never place the fruit more than two layers deep on the shelves—(we should say one layer would be preferable). Use no straw for the fruit to rest on—not any whatever. Admit plenty of air, except in severely cold weather. Avoid handling until the fruit is wanted for the table.

We might supplement the above with the remark that to ripen fruit handsomely and evenly it may be covered from air and light, though of course this does not help to preserve it. The Rev. E. P. Roe gives the following as his simple method of keeping grapes till New Year's, or later, as fresh and unchanged as the hour they were picked :—

I leave the clusters on the vines as late in the season as immunity from frost will permit, then provide myself with large earthen crocks or pots, and stiff brown or straw paper. In the middle of the day, when the berries are perfectly dry, fill the pots with thin layers of clusters, and a thickness of paper between them. Let them stand in some dry, cool place for three days uncovered; then put the covers on the pots, and paste thin brown paper over the covers, so as to keep them from the air. Select a dry knoll, and bury the pots in the earth below all danger of frost; lay a broad board over the top of the pots and cover with earth, mounding the soil upon them so as to turn the water in every direction. When the ground begins to freeze hard it would be well to cover the mound with leaves or straw, so that the pots could be dug out more easily in severe weather.

We close with a remark made by a speaker at the Chatham Farmers' Club, as repeated in *The Courier*, of that town :—

If you want apples to keep they should be picked as soon as they get their growth, and picked carefully, without being bruised or scratched. There is a natural wax or bloom upon the fruit, which if bruised or scratched off, the fruit will spoil. He advised the use of new barrels to all such as were about to send fruit to market—it pays largely. An inferior fruit will look better in a new barrel than good fruit in an old barrel.

## Chinese Oysters.

ODDITIES IN THEIR BREEDING AND PRESERVATION.

Like so many peculiar things in the Celestial Empire, the system of breeding the above-named bivale differs widely from that pursued in Europe or America. In the southern parts of China "collectors" of bamboo are placed in the oyster-beds, much after the same fashion as the elaborate tiles and "hives" employed in France. Those oyster-catchers are, however, prepared in a curious manner. The cans are exposed for about two months to the rays of the sun, and then placed for a similar period in salt water, after which they are again dried for several days, the object being to preserve them from decay and prevent the twisting or wraping of the bamboo. Notches are then cut in the canes, into which empty oyster shells are fixed, like so many cups, and thus prepared they are driven into the seashore between high and low water mark, and left standing to catch the young spat. Those localities are considered the best where the rise and fall of the tide is the greatest, so that the bivalves may be alternately covered by the flood and exposed to the air on the ebb. There the young oysters thrive well and develop rapidly, and are quite ready for the market when they are two years old. A large trade is carried on by the persons who pursue the calling, and who have many thousands of these collectors planted in favorable situations, and some successful beeders have been known to realize large fortunes. In China large quantities of the oyster are dried instead of being eaten in a fresh state. For that purpose they are taken from the shells, simply plunged into boiling water, and then removed at once, after which process they are exposed to the rays of the sun until every particle of moisture has evaporated. In that style they will keep for a length of time, and are said to preserve all the delicacies of their flavor. The finest and fattest bivalves, bred and fed on the leaves and cuttings of the bamboo, are selected for preparation by that method, those taken from the natural beds being inferior in quality, and not sufficiently plump to stand the operation.

## Butter Stores in Paris.

While waiting for our breakfast one morning in a *cremerie* in Paris much frequented by foreigners, my friend Madame B—— said, "I can point you out every American breakfasting here."

I looked around at the people seated at the different tables, and wondered if she were speaking seriously. In these days when fashion reduces costume and coiffure to such uniformity, and when the blood of every civilized race is mixed to a great extent with that of every other, distinguishing nationality at sight appeared to me impossible. I asked my friend her secret.

"Oh, it is no secret," she replied, smiling. "I don't pretend to tell except when they are taking breakfast. They all put salt on their butter."

"Your acuteness applies only to breakfast, then," I said. "At dinner it would not serve you, I suppose." I said this in a kind of savags way, having the common weakness that makes all people abroad defend their countrymen.

"No," she said; "we never put butter on the dinner table"—a fact I had at the moment forgotten.

It is true that the only salted butter you ever find in Paris is the American butter (*beurre americain*), but there this is used only for cooking, and is never sold in butter stores, but in groceries. It is our common tub butter. The French butter, the finest possible product of its kind, is sold in the butter stores scattered all over the city, which furnish nothing but dairy products and eggs. These stores are generally models of order and neatness. Young girls or women in snowy caps and aprons, courteous and obliging, serve the customers, while a responsible-looking matron sits at the desk, supervising the business and keeping the books. In Paris women seem to have monopolized the occupation of book-keeping.

One of the butter stores of Paris I remember especially, and will briefly describe it. It was near the grand market (La Halle). The large window on the right of the entrance always contained a large loosely arranged bouquet of fresh flowers, apparently gathered from some rural garden. There was nothing else in the window except a glass-covered stand containing Bondon cheese and the *double creme suisse*. Inside, there was a long horse-shoe counter or table, where eggs and cheese were sold, and on either side marble tables, each containing about four huge masses of butter, shaped like an inverted butter firkin. Over each mass was hung a delicate silver wire about two feet long, both ends terminating in a piece of cork. With this wire the sales-woman would cut, almost always exactly, any amount ordered, from a *demi-quart* (half a quarter) to a pound. It being a costly product, and always purchased daily, small quantities are the rule. To separate the quantity ordered, lay it on a square of delicate white paper on the little scales, weigh it, pinch the corners of the paper together, and place it on the cool lettuces in your basket, is the work of a very few seconds with these expert sales-women. Lettuces you would be sure to have in your basket, for no one goes to market in Paris without buying them, they are so crisp and fresh; and naturally you would purchase butter after everything else, that it might reach home in the freshest possible state. —MARIE HOWLAND, in *Harper's Magazine for October*.

## Dusting.

Florence Nightingale says that dusting in thes days is nothing but flapping dust from one part of a room to another, and says that she cannot imagine why it is done. A duster should be well shaken out of the window every few minutes, but if one be in too great a hurry to take the number of steps necessary for this, or if it be impossible to keep the window open while one is dusting, it is possible to rid the furniture of every atom of dust by using two cloths, one very slightly damped and the other dry. The former will remove the dust, and the latter the slight moisture left by the former. Do not wet a duster which you mean to use in this way. Sprinkle it and roll it up over night as if you meant to iron it, and when you have done using it, dry it thoroughly, shake it out, plunge it in cold water, and dry it again. It is better to use bright-colored cloths if you can; they do not look quite so ugly when drying, and it is sometimes necessary to have them in sight during the process.

Nothing makes a woman age more rapidly than overwork; the reason, probably, that American women fade so soon. Sunshine, music, work and sleep are the greatest medicines for women, who need more sleep than men. Their nerves are more sensitive, and they are not so strong, and exhaustion from labor or pleasure takes place sooner with them than with men. Never permit yourself to be roused out of a deep sleep in the morning. In fact, one should never be wakened. The body rouses of itself when its demands are satisfied. Take a warm bath occasionally before going to bed—at least once a week. Retire as soon as you feel sleepy in the evening. Don't rouse yourself and go to work. You need rest then, and will pay for the trespass on your physical nature the next day if you disobey.

## The First Red Leaf.

BY MRS. CLARA DOTY BATES.

How like a blossom on a bough,
In haste to put its scarlet on,
The first red leaf swings in the sun.

Not yet has the magician, Frost,
With sunset colors in his brush,
Made emerald woods and uplands blush.

But there upon that topmost bough,
The little vivid, kindling thing
Flies without progress, without wing.

So will it float until some breeze
Leaves it, with wanton touch, alas!
Wrested and helpless on the grass,

To scorch in sun, be drenched with rain,
Its day of tinted glory brief,
No blossom—but a withered leaf!

Vagrant as thistle-feathers blown
At the scant mercy of the air,
Shelterless, homeless, anywhere—

The very breath that dallying strove
To flaunt its banner-color out,
Readiest to buffet it about!

Yet, see, how on the breezy bough,
In haste to have its scarlet on,
It flames and flutters in the sun.

## A Tarantula's Home.

One of the most singular curiosities in nature that has ever come under our observation is the nest of a tarantula, a species of spider whose bite is supposed to be fatal. It is constructed of clay and small stones, and is about four inches long and two inches wide. A hole three-quarters of an inch in diameter passes through it lengthwise, one end of which closes by a trap door beveled at the sides and top, and fitting so perfectly that when closed scarcely a sign of the opening is visible. The door is rounding at the top, perfectly straight at the bottom, and works on a hinge constructed on the same principle as the joints on which a door hangs. The nest is lined with a soft grossamer substance, and is as round as if bored with an auger. It is said that the tarantula, when attacked, crawls into its nest, and, closing the trapdoor, secures it by inserting one of its legs through a staple scarcely discernible to the naked eye. These tarantula nests are quite a curiosity, yet they are found in great numbers in Calaveras, Tuolumme and Stanislaus counties; visitors returning from Yosemite can find them along the banks of the stage road plentifully.—*California Farmer.*

## A Story for Boys.

A boy finished his education and looked around for employment. He was a bright lad, with healthy organism and a resolute heart. His father had given him all he had to give, and the boy took his bundle and turned his steps toward the city. There was nothing about him to insure success, apparently, that ninety boys out of a hundred did not have. Young as he was he had some rules. He would keep out of bad company. He would go into no business that was not reputable. He would not be idle. He would take any business, even if the pay was poor, that would give him a living. He would try to make every position a stepping-stone to something better. Whatever he did he would do cheerfully, and do well. His uncle once told him that civility was a poor man's capital. He had some of that stock, and he proposed to invest it He trotted around a week, asking the stereotyped question, "Do you want a boy, sir?" Nobody wanted a boy. Endurance was one of his traits, and he held on. A man kept a seed store just off Broadway. He wanted a boy, but he could not pay much. Position, not money, was what the boy was after, and he thankfully accepted the place. The work was hard, the pay poor. He shirked nothing and never grumbled. His cheery, smart way of doing things attracted the attention of the bank where his master kept his account. He was offered a place in the institution. His heart bounded at the offer. He was too honorable to take advantage of his employer, so he went to the store and talked to him. "I do not want you to go," said the man, "but you are worth a good deal more than I can afford to pay you." The next week he was installed as check clerk. The business of the bank was very large. It was mainly with marketmen, and the checks were small. Out of a hundred not two would be over ten dollars. The work was immense.

One day a porter said to the young clerk: "Your work is hard, and your pay small; you can never rise in this bank. A new bank is to be opened Monday; they want a check clerk. Why don't you apply?" "I know you very well," said the officer. "I would be very glad to have you in the bank, but I cannot pay you any more than you are now getting. You will have to take the lowest round of the financial ladder, and I don't see what you would gain." "I see," said the discerning lad. "Give me the position and I'll run the chances." In four months he kept the individual ledger. In six months he was a bookkeeper. In a few months he was receiving teller. In ten years from the time that he first entered the bank he was elected cashier to one of the largest moneyed institutions of New York.

He had marked financial talent. He learned the principle of banking. He knew every principle that underlaid the system. He had the intuition of a woman. He was an influential and judicious adviser. He took the measure of a man at a glance, and seldom made a mistake. He came earlier and left later than any of his associates. He lent a helping hand to every department. If a clerk wanted an hour's absence, he supplied his place. If a young man was bothered or in trouble, he would assist him. With the customers of the bank he was eminently popular. As it neared three o'clock and the rush became uneasy, in his pleasant way he would say, "Don't crowd, gentlemen, don't crowd; you shall have plenty of time." When discounts would be denied or ugly customers were to be dealt with in the bank, the young teller was put forward to do the unpleasant work. His bland and pleasant manner disarmed the disappointment of half its sting.

## Migratory Squirrels.

The following is illustrative of the intelligence common to the lower orders of the animal kingdom:—"Squirrels in Lapland are in the habit of emigrating in large parties, and sometimes travel hundreds of miles. When they meet with broad lakes, they take a very extraordinary method of crossing. They approach the banks, and perceiving the distance between them and the opposite shore, they return as if by common consent, into the neighboring forest, each in search of a piece of bark or light wood, which answers the purpose of a boat to ferry them over. When the whole company is provided in this manner, they boldly commit their fleet to the waves, each squirrel sitting on his own boat, and fanning the air with his tail in order to drive himself across. In this orderly manner they set out, and often cross lakes several miles broad in this way. It occasionally happens, however, that the poor squirrels encounter such a gale that nearly all their vessels are capsized, and they are shipwrecked. It is an ill wind that blows nobody good, however, and the shipwreck so disastrous to the squirrel, is a matter of great rejoicing on the part of the Laplander on shore, who gathers up the dead animals thrown on shore by the waves, eats the flesh and sells the skins."

## Don't Whip.

A parent who doesn't know how to govern a child without whipping it ought to surrender the care of that child to some wiser person. Sportsmen once thought it was necessary to lash their dogs in training them for the field. They know now that the whip should never be used. Horsemen once thought that it was necessary to whip colts to teach them to start and stop at the word and pull steadily. They now know that an apple is better than the lash, and a caress better than a blow. If dogs and horses can be thus educated without punishment, what is there in our children which makes it necessary to slap and pound them? Have they less intelligence? have they cold hearts? are they lower in the scale of being? We have heard many old people say, "If we were to bring up another child we would never whip it." They are wise, but a little too late. Instead of God doing so little for children that they must be whipped into goodness, he has done so much for them that even whipping can't ruin them—that is, as a rule. Many children are of such quality that a blow makes them cowardly, or reckless, or deceitful, or permanently ugly. Whipping makes them steal. Whipping breaks their spirit. Whipping makes them hate their parents. Whipping makes home distasteful—makes the boys runaways, makes the girls seek happiness anywhere and anyhow. Whipping is barbarous. Don't whip—*Golden Rule.*

## HUMOROUS.

A GALLANT OLD GENTLEMAN.—Not long ago, as an elderly couple were out walking, a lady on the opposite side of the street tripped and fell down. The old gentleman rushed across the street, raised his hat, and offered to assist her in any possible way. His wife followed him across at a slow pace, and witnessed his devotion to the stranger. She got mad and shook her fist at him. "It's all right—it's all right," he whispered. "Yes, I know it is!" she hotly exclaimed. "Here an unknown woman stubs her toe, and you plow across the street to eat her up with kindness. The other day, when I fell down stairs, you stood and laughed and chuckled and tickled your ribs, and wanted to know if I was practicing for circus!"

"Will you dine with me to-morrow?" said a Hibernian to his friend. "Faith and I will with all my heart." "Remember 'tis only a family dinner I'm asking ye to." "And what for not? A family dinner is a mighty pleasant thing. What have you got?" "Och! nothing *by* common; jist an illigant piece of corned beef and potatoes." "By the powers! that bates the world! Jist my own dinner to a hair—barring the beef."

Three little boys on a recent Sabbath were stopped on the street in this city by an elderly gentleman, who, perceiving that they had bats and a ball with them, asked one of the number this question: "Boy, can you tell me where all naughty boys go to who play ball upon Sunday?" "Over back of Johnson's dam," the youngster replied.

A member of a fashionable congregation in New York lately called at a music store and inquired for the music of a piece called the "Song of Solomon," which his pastor referred to the Sabbath previous as an exquisite gem, and the inquirer's wife wanted to learn to play it.

How some women change their minds respecting their husbands! Mrs. Jinks was forever telling her husband that he wasn't worth the salt in his bread. But when the poor man got killed in a railway smash-up, the fond widow sued the company for five thousand dollars damages.

A bashful young man escorted an equally bashful young lady. As they approached the dwelling of the damsel, she said entreatingly, "Zekill, don't tell anybody you beau'd me home." "Sary," said he emphatically, "don't you mind, I am as much ashamed of it as you are."

A countryman walking through New Orleans found his progress stopped by a barricade of lumber, and he asked what it was for. "Oh, that's to stop the yellow fever," was the reply. "Eh! I have often heard of the Board of Health, but I never saw one before."

A lady entering a horse-car observed an elderly gentleman rise. She said to him: "Don't rise, I beg of you, I much prefer you should keep your seat, sir." "I should be very happy to accommodate you, madam, but I want to get out here."

"Do they ring two bells for school?" asked a father of his ten-year-old daughter, who attends high school. "No, pa; they ring the same bell twice," she replied.

A man in Ohio, who attempted to hang himself recently, was cut down by his mother-in-law. She evidently was not through with him yet.

A kind-hearted man riding on horseback to a mill placed a bag of corn across his own shoulders, so as not to burden his horse with it.

"That's what I call capital punishment," as the boy said when his mother shut him up in a closet among the preserves.

"John, did you find any eggs in the old hen's nest this morning?" "No, sir; if she laid any she mislaid them."

"I'm told, Mr. Paine, that you are a hard drinker." "Not a bit," cried Paine; no man ever drank easier."

There iz no mistake about the pleasure ov welth; the mistake iz that plezzure is not happiness.—*Josh Billings.*

Red used on a railway signifies danger, and says "Stop." It is the same thing displayed on a man's nose.

Dr. Holmes says that crying widows marry first. There is nothing like wet weather for transplanting.


## The Family Circle.

"Home, Sweet Home."

### How Tim Became a Farmer.

"Shine your boots? Five cents a shine. Shine your boots?"

Tim had tried his best to get work, but no one wanted his boots cleaned. He wondered why it was. When mother was alive, how often Tim had begged her to let him set up as a boot-black. "They make lots of money," he would say. But she always shook her head and said, "Keep on at school as long as you can; you're too young yet. As long as I'm spared I don't want you to try it."

But the poor hard-working woman had overtaxed her strength, taken a fever and died. Then Tim, left alone in the world, with nothing but a couple of neat but much-mended suits of clothes and five dollars, resolved to set up as a boot-black. For a whole week he had tried it. Some days he got two or three customers, but now for two days not one person had let him shine his boots. His five dollars were almost gone; what should he do? Tim was almost desperate, and in his desire for a job asked a lady who was passing if he could shine her boots. Perhaps she had little boys of her own, and made it a rule never to pass a poor boy without a kind word, for their sakes. At any rate, she stopped and said:—

"Not here, my boy; but if you will walk a ways with me, I'll let you clean them, for they are very muddy. Perhaps, though, you will lose some work by leaving your place?"

"No, indeed; I've not had a chance to-day."

"That's bad," said his new friend, "if you need the money very much, as I suppose you do. But you look so neat and nice, I think you have a good mother."

Tim tried to answer, but his throat swelled, and tears filled his eyes.

"There! there! Don't fret, dear; here's the house. Wait at the area, and the cook will let you in."

Soon a pleasant-faced woman opened the lower door and told Tim to sit down by the kitchen fire. The kitchen was full of the odor of soup, and you know how that will make you hungry even long before dinner-time. Tim, who had had no soup since his mother had last cooked their dinner, snuffed the air, and remembered sadly how good his mother's soup used to taste.

"Mary," called a voice that already sounded familiar, "give the boy a bowl of soup. I can't come down at once, but here are the shoes; he can clean them after he has eaten. Put plenty of bread in his soup, Mary."

"Shure, I was just longing to do it," muttered the girl, hastening to fill a bowl for Tim. "Here," she said, "draw up to the table and eat."

Tim was too hungry to remember his mother's instructions as to washing his hands, but he did not forget to bow his head, saying the grace he had said at every meal since he first began to speak:—"I thank thee, dear Lord, for this nice food; and help us to be thy good children, for Christ's sake."

Mary stood still in astonishment. "That's the first grace in this kitchen," she said to herself, "but I'm bound it shan't be the last. I've been a forgetful creature."

The soup finished, Tim polished the shoes; such nice buttoned boots he had never handled before. Just as he was giving a last touch to them, he heard some one come in, and saw the lady who had brought him standing talking to Mary.

"Thank you; they are very nicely done. But if you get only one customer a day, you'll not get on well. Who takes care of you, my boy? Try to tell me about yourself. What is your name!"

"My name's Tim Titus, ma'am. Nobody takes care of me—nobody but God. Mother said He'd never forget me. Mother—mother died—last—"

But he could not tell of that. The lady's hand was on his shoulder, and she was drying his tears with her own handkerchief.

"I've tried boot-blacking, but I don't believe I can get enough to do. Oh! ma'am—" and the boy again broke down.

He was so neat and clean that Mrs. Denny drew him close to her, soothing him as every mother knows how to soothe and comfort. But her heart was troubled for him. Truth to tell, she had no money to spare and could do but little. She had only lately moved to the city, and had few friends there. What could she do to help him?

Suddenly Mary, who had been looking on, full of sympathy, and remembering their country life and the plenty there, said:—

"Send him to the country."

Mrs. Denny's face brightened. "Why, that's a good idea, Mary. I do believe Mr. Ackerman would be glad of just such a boy. Would you drive cows, and learn to milk and help about the house, Tim?"

"Indeed I would, ma'am, and take my brushes and black their boots for him."

"Once a week is all they black 'em," said Mary, with a laugh.

So it was arranged that Tim should come back in the morning, and Mrs. Denny would give him a note to the farmer. She offered to pay his way, but Tim said he had two dollars left and could buy his own ticket. Mrs. Denny was pleased with his honesty, and felt sure that such a boy would succeed.

The next day Tim was off for the country. All his treasures were easily packed in his mother's old bag, and Mrs. Denny advised him to leave that at the depot when he reached Farrington, and walk out to the farm without it, as, if the farmer kept him, he could easily get it. Tim found the farm, and hearing voices at the back door walked round that way and asked for Mr. Ackerman.

"He's in the barn," said a pleasant-looking girl. "What do you want?"

"I've a note for him."

"Well, go right over."

Tim delivered his note. The farmer read it and then, without saying a word, went on with his work. Tim felt rather discouraged, but, seeing a pair of boots in one corner, set to work and polished them. This took some time, for they had never been polished before, I fancy. Then Tim put up his brushes and slung his box on his back; he had better go back or try somewhere else. The farmer was just going up to the loft, but as Tim slung his box, he said:—

"Come here, my boy. You can work; I see that. Are you willing to work for a home?"

"Yes, indeed, sir."

"Got any clothes?"

"Two suits, sir."

"Any money?"

"One dollar and fifty cents."

"How much time do you expect to have to fool around?"

"Can't tell till I try to do the work."

The farmer was pleased with the bright, truthful face, and said:—

"You'll do. Go in the house and tell 'em to set you to work—chop wood, draw water, do anything till milking time."

So that was how Tim's boot-blacking ended. He lives on the farm still, but he is taller than I am. Mrs. Denny comes out to see her old friends sometimes, and is always as glad to see him as any of the rest; and, next to God, Tim loves the lady who let him shine her boots.—*Hope Ledyard.*

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### Snowed Up.

BY THE AUTHOR OF "A RACE FOR LIFE."

"I believe I am the most unlucky fellow in the world," said Bertie Tyrrel half aloud, as he tied his white tie.

"Why so, my dear fellow?" inquired a cheery voice at the door.

Bertie turned, still holding his *chef-d'œuvre* at his throat, and said, "Oh, Charley, is that you? Come in; I shall be ready in five minutes. Having arranged his tie to his satisfaction, he repeated, "Yes; I believe I *am* the most unlucky fellow in London, at any rate."

"What's the matter?" inquired his friend.

"Well, you see," replied Bertie, "I've just had a letter from my sister saying that Miss Patterson is about to leave Marchmont and proceed to the South of France. (Mother's not well, I believe.) You know I intended to go down this week and put myself out of my pain. Charley, I love that girl, and, Charley, I must marry her!"

"Well!"

"But it is *not* well. Charles Fletcher, you are a fish, a cold-blooded animal. How can you talk like that when I am really, truly, and madly in love?"

"My dear Bertie, I should wait till the lady and party come to London, and then see her and ascertain your chance."

"They do not come to London, I believe; at least, not to stay; so I am completely upset."

"It will all come right, old fellow. Are you ready?"

"Yes; it is time to be off. I do not feel at all inclined to go, though," said Bertie mournfully.

A dinner-party was given by a Mrs. Arteman, in whose husband's office Bertie Tyrrel was, or flattered himself he was, a shining light. Mr. Arteman and Bertie's family had been friendly for years, and the young man was rapidly making his way to a junior partenership. He had the credit of being very trust-worthy and quick at business—qualities which he took care to cultivate.

Many people came in the evening also, and just before the carriages were announced, Mr. Arteman entered the room and gazed anxiously around. For some minutes he was unable to descry the object of his quest, but at last found him out, and touching young Tyrrel on the arm as he sat in a corner of the room, beckoned him aside.

Hastily apologising to his fair companion, Bertie rejoined Mr. Arteman in the empty dining-room.

"Is anything the matter, sir?" he asked.

Mr. Arteman put a telegram into his junior's hands as he spoke.

"This looks serious," said Bertie as he returned the paper. "What do you intend to do, sir? How can we restore confidence in the Manchester office?"

"By sending you down," replied his chief quietly.

"But to-morrow will be to late," said Bertie.

"Therefore you must go to-night, my lad.

"To-night—go to Manchester to-night!" exclaimed Tyrrel. The thing's impossible!"

"Oh! dear, no," replied Mr Arteman coolly. "I have had your bag packed already. I took the liberty to send Collins to your lodgings for your morning dress. I have a cab at the door. Here are ten pounds in gold. Run up-stairs and change—take a bit of supper first though. The Pullman train from St. Pancras starts at midnight."

"And it is now eleven," said Bertie, looking at his watch. "What sort of a night is it, Collins?"

"Snows fast, sir," replied the man.

"Snows, does it?" exclaimed Bertie. "Better fill up the flask then, and put a half-dozen cigars in my coat-pocket—and, I say, Collins!"

"Yes, sir."

"Cut me a couple of ham sandwiches while I dress."

In fifteen minutes Bertie had received his last instructions from Mr. Arteman, and was bowling along the Euston Road to the Midland station.

That immense terminus looked warm and comfortable in comparison with the wet and chilly night outside. The Pullman train was at the platform, ready to start. There were very few passengers. Bertie took a sleeping-car ticket, and without loss of time tucked himself up comfortably in his berth. The train started soon after this, and Bertie Tyrrel was rapidly whirled into the land of dreams.

But his dreams were pleasant dreams, and if he had not been conscious of the penetrating cold, he would have enjoyed a good night's rest. He shivered and awoke. The lamp was burning dimly. The steady "whirr" of the fast-flying wheels told him that the train was rushing still on through the stormy night. Something fell on the lamp—there it was again. It came in through the lattice over his bed. It was snow!

"Pleasant night!" thought our traveller. "I'll have another nap."

Easier said than done. No efforts of his could induce Somnus to pay him a second visit. The

chilly feeling he had before experienced compelled him to put on all his wraps. Then he got up, took a sip of brandy, and went out upon the platform of the carriage to smoke.

Oh, the cold nipping wind, how it darted in between the carriages! Bertie had to hold on to the hand-rail tightly. But what a scene it was! A vast white sheet had been spread o'er Nature's face and she lay as if dead beneath it. Every now and then a gentle swell or undulation in the surface looked like a heaving breast as the fiery monster hurried past. The invisible flakes fell thick and fast, and bore upon the angry blast the white veil closed around them. They knew it not, but as surely as the clouds were overhead, the mighty engine was rushing into a trap laid by winter, and the pure, white, gentle flakes of soft snow.

As the train flew along the track, little snow-storms came up from all the wheels in clouds of powdering dust. Bertie was fascinated. Past sleeping towns and villages, past black chimneys rising into the murky sky from white unsullied roofs, past close-shut windows 'neath whose sashes the yielding but resistless snow wormed itself like herring-bones, and hung outside in slow-dissolving flakes for King Frost to weld closer. Past a huddled heap of humanity, beneath the shelter of the embankment, on which the merciless though tender falling winding-sheet was surely wrapped. Past all these, and many more sights, did the Pullman carriage rush and scream, and yet no stopping for the train.

But ten miles farther on the trap was laid. In a deep cutting, the northern wind and drifting cloud conspired to do battle with the boasting power of man. Lie closer still, O drift! blow fiercer still, O wind! Ye wait the daring monster who boasts he can out-strip the wind, and rattle wildly o'er the snow-clad fields.

A roar through a tunnel—Bertie had once again turned in—the train emerged; it slackened speed: a long deep whistle. The engine stopped dead short, and pushed up a six-foot mound of snow, melting it for one brief half-minute; the water dashed at its enemy fire, and hissed its vengeance in its burning ears. The fiery foe collapsed, the mighty monster lay imbedded in the drift, harmless as a fattered giant, but still noisy in its protests.

Clouds of steam anxious to be free from that fatal cutting rushed upwards and disappeared, or unable to escape, fell in warm tear-drops on the virgin snow-white carpet. The engineer let the boiler run empty, and sent his fireman back to the last station for assistance. Man was powerless against the snow.

The soft, the gentle snow!

The passengers awoke, and shivering came one by one out at the end platform of the train, asking questions and not waiting for replies. No need to ask what was the matter a second time. The helpless lighted train glowed like a long lighthouse beneath the snow-clad embarkment. A bank in front, a tunnel behind yawning darkly like an immense hole cut in white paper, a biting wind and driving snow, told the tale all too clearly.

Snowed up! Not a doubt of it. When could assistance arrive? Where there any ladies in the train? No ladies; only twenty-two travellers, and all men.

An hour passed. A scout who had gone ahead reported the drift almost impassible even on foot, and the wind at the end of the cutting rendered progress highly dangerous. They must camp where they were till day-light, at least. Better in the Pullman sleeping-car than upon the slopes of the fatal snow-drift, that winter night.

But Bertie was due at his Manchester office at nine o'clock that morning. It was now about a quarter to four. He must get on, and he expressed his determination aloud to his fellow-passengers.

"I will accompany you. Where are we, guard?"

"Atween Ambergate and Matlock—but don't know where though, gentlemen, exactly. Ask Ben."

"Ben," the engine driver, informed them that they were about an hour and a quarter's run from Manchester, and added a word of caution. But Bertie was determined to push on and, accompanied by two other passengers, he starter on his venturous expedition.

Once out of the cutting they trusted to be free. Surely the stoppage of the line would be telegraphed by this time and, perhaps, a train in waiting to take them on. So they stepped manfully out, sinking deeply at every step, but still making progress.

The snow had ceased; the sky was clearing fast, and frosty-looking stars peeped out to view the desolation. The wind was bitterly cold. Every now and then the snow would be dashed in their faces, as by handfuls caught up by spirit-fingers to obstruct their progress.

For awhile they kept side by side. Struggling against the blast they pressed on till, unknowingly, they mounted the side of the cutting, and wandered far away across a level field, and over the distant hedge, covered up with newly-fallen snow.

The sudded ease with which they stepped now had the very opposite effect to what might reasonably have been expected. They knew they had strayed. Where was the railroad? They must regain it at any risk. But the two older travellers determined to remain where they were, sheltered comparatively behind the hedge, in only a foot of snow, till daybreak. Bertie rashly made up his mind to return in his tracks, which were plainly discernable, and against the advice of his comrades he acted upon his resolution.

His one idea was to reach Manchester. If he did not succeed in averting the impending crash there, all his prospects would be ruined. His hopes of ever winning his lady-love would be completely shattered, and what was life without love? He must succeed, though he perished in the attempt; he would do his duty whatever happened.

So he manfully struggled on—at times up to his knees in snow; once completely buried in the drift: he fell down, down, until nothing but a small star was visible overhead. The snow kept closing in. He breathed hard upwards towards the hole. (His hands were fastened to his sides by pressure of the drift.) By breathing hard at the tiny hole it became larger and larger. The snow melted and he got a hand free. At length he got his head out, and after a severe struggle he fell forward, half insensible from cold and nervous exhaustion. He rolled over the harder snow for a space; down, down—it seemed as if he would never stop—a hard substance received him—a crash of glass, or ice, a moment afterwards fell upon his half-unconscious ears, and he lay insensible on the ground. A light was burning steadily over his head.

* * * * * *

The spirit remained in the body, but the clay tenement refused to acknowledge the presence of the master. Sense lay wrapped within the brain and behind the sullenly closed lids. Speech was there, but somehow it could not force its way through the stubborn lips, The ears were open to catch the slightest sound, and eagerly they drank it in; but the shaken nerves refused to listen, or at best only grudgingly as yet.

And thus lay Bertie in a trance—dead, and yet alive; ready to speak, dying to utter his thoughts, and yet dying because his speech was locked; the pressure on the brain was not yet unloosed, and Bertie lay there almost as he fell, it seemed to him.

But yet things were curious mixed up around him. He could move his hands and feel he was lying upon soft cushions. Dull to his ears arose the sound of those horrible whirring carriage-wheels. It seemed to him as if he were back again in the railway carriage, *en route* to Manchester.

Still people were about him. Feminine fingers ministered to him—that gentle touch just now was very different from the other tender finger-tips of some good Samaritan, probably a doctor.

The subtle odour of a lady's presence clung sweetly around Bertie as he lay sensible to what passed, but unable to form a word, or look his thanks, or even recognise the gentle care.

Once he essayed to open his eyes, and, oh! how the vision of that one fair face he loved hung over his half-conscious brows, and was for a second photographed upon his brain! No—it was gone—a moment more and the dull whirr of the revolving wheels, the even motion of the Pullman car, all seemed to hold him in thrall as he lay supine on the soft cushions,

But this could not last. By slow degrees the brain resumed its sway. He opened his eyes. Things were very dim to him, and the cold, chill hand of Death apparently was on him. He could not move his head, but as he gazed with dull half-open eyes, the vision of his love rose up to bid him welcome. Oh, lovely vision! it came nearer and nearer—it would touch him! yes, it bent down, and breathing a soft petition for his recovery, vanished.

Whirr—whirr—whirr!

Did he dream still? No; voices distinctly fell upon his ears. Where was he? A shrill whistle broke the monotonus sound; the undulating movement of the car he had felt, or fancied, seemed to cease.

"Hush!" some one spoke. Bertie opened his eyes. He was dreaming still. . . . He lay upon a cushioned berth in a Pullman palace car. The lamp burned very dimly overhead. Daylight penetrated the curtains round him. He felt very weak and very cold, but he was not dreaming. How had he got there?—what had happened?—where was the snow?

He called out. A gentleman entered softly. "Where am I?" inquired Bertie, faintly.

"Hush, hush! quite safe; do not agitate yourself," replied the doctor, as Bertie fancied the new-comer to be. "We have got you round nicely."

"But where am I?" persisted Bertie.

"You are at Ambergate Junction."

"I must go to Manchester at once. Help me up, please."

"My dear sir, it is quite impossible to move you. You have had a very severe fall, and must be kept quite quiet. We have telegraphed particulars to Mr. Arteman. You cannot be moved.

This was decisive, and the doctor left the berth. Yet, as soon as his back was turned, Bertie made an effort to rise. With difficulty he repressed a scream; the pain was acute. He at once perceived that movement, even in bed, was out of the question at present, so wisely he determined to await events. His thoughts naturally dwelt upon the happy vision he had seen, and he foolishly accepted this as an omen favorable to his ultimate happiness. At length he fell asleep.

He awoke very hungry, and saw the doctor at his side. He put out his hand, which Bertie took and clasped warmly in his own. The kind doctor made a careful examination of his patient and then said—

"You are much better this evening, I am glad to tell you, and as soon as the stiffness wears off you will be all right again. I may tell you now that we have had a telegram from Mr. Arteman. He is at Manchester, so your natural anxiety may be allayed."

"Oh! thank you, thank you," exclaimed Bertie, with fervor. "You have indeed put my mind at ease."

"I was enabled to tell him there was no danger, so he went on this afternoon. He saw you while you were asleep."

Bertie stared, as well he might.

"Yes," continued the doctor, "you have slept for thirteen hours.

"Indeed!" was the patient's only reply. "But I say," he added, "how did I get here? I remember being in the snow, and I think I fell——"

"I should think you did," replied the doctor. "You came plump into this car—rolling in snow."

"I am afraid I am still confused, doctor, for I do not understand you now."

"You rolled down the embankment into the windows. We were snowed up in the great cutting on the up-line. Another train, yours, probably, was at the other end. You in your excursion tumbled into our windows. It was very fortunate for you that you didn't roll over the parapet into the river, my lad."

"And very lucky," said Bertie, graciously, "that you happened to be in the train, doctor."

"You have not to thank me so much as Mr. and Mrs. Patterson, sir; and they telegraphed to Mr. Arteman."

"Mr. and Mrs. who?" exclaimed Bertie, sitting up quite regardless of his bruises. "Patterson did you say."

"Yes; do you know them! They did not appear to recognize you."

"Yes—no—I know a Miss Patterson—I——"

"Whew!" was all the doctor's answer.

"What! Is there a Miss Patterson? Is she here? Is she—was she in the train? Alice is her name."

"That is the lady; she nursed you until I came. Her mother is an invalid rather. They were caught in the drift last night, like yourself."

"Where is she, doctor? Did she leave a message?"

The doctor's eyes twinkled. "Well, not exactly, but she gave me special directions to let her papa know how you were. This is the address."

He took an envelope from his pocket-book and handed it to Bertie, who read: "Harvey Patterson, Esq., at————Hotel, London, till Friday afternoon."

"What's to-day?" inquired Bertie, hastily.

"This is Thursday. It is seven o'clock p. m."

"Doctor," exclaimed Bertie as he recalled the vision of the day before, while he lay half insensible, "I shall go to London to-morrow.

The doctor smiled. "What, and leave Manchester business! But seriously I think you scarcely fit to travel. Well—well, we shall see," he continued, as Bertie moued his head impatiently. "We shall see. Keep quiet now and I dare say you will be well enough to go to London. Good night."

"Good night." And then Bertie resigned himself to blissful thoughts, and happy anticipation for the morrow.

Two o'clock was striking at Westminster, when Mr. Bertie Tyrrel's card was taken into a private sitting-room at the ——— Hotel. There was only one occupant of the spacious room—a young lady whose good, sensible, and bright face lighted up with a softer expression as she read the name of her visitor.

"Show him in, please," she said camly, yet the palpitation beneath the well-fitting travelling-dress to a woman's eye would have betrayed a secret.

The waiter ushered Bertie in and quickly retired. The young man waited till the door was closed, and as Miss Patterson stood up with outstreatched hand, he clasped it warmly. No word of greeting did he speak. He only gazed for one moment into those eyes of liquid blue—the eyes grew tender and then the shading lashes trembled, but only for a second. But Bertie could read.

Without a word, he clasped Miss Patterson in his arms. "My darling!" was all he said.

She struggled to free herself, strongly at first; but as he whispered something in the crimson shell-like ear close to his trembling lips, the pretty head sank upon his shoulder, and the silence that gives such sweet consent told all the rest!

When Mr. Patterson came half an hour afterwards, he found a prospective son-in-law seated on the sofa, holding his daughter's hand.

Explanation ensued; the upshot of it being that Bertie's health required a change to the south of France. He was married in the ensuing summer; and he always considers that he owes his present happiness to having been SNOWED UP.

HENRY FRITH.

## The Island of Cyprus.

Since the English came into possession of the Island of Cyprus, by the recent Treaty of Berlin, a great desire to learn something of the character of the island has been very naturally developed. The following account of its climate, character, &c., from the London *Gardeners' Chronicle*, will be interesting to our readers:—

"Cyprus lies between 34° 33′ 30″ and 35° 41′ 18″ north latitude, and 32° 15′ 42″ and 34° 35′ 48″ east longitude from Greenwich, and with the exception of Sicily, Sardinia and Crete, it is the largest island in the Mediterranean Sea. The Southwestern portion (nearly half of the area) is mountainous, the highest peak, Troodos (ancient Cyprian Olympus,) rising to an altitude of 6000 feet. The North coast is also skirted by a narrow range of hills, which reaches 3000 feet in height. Between these two mountain ranges is an extensive plain drained mainly by two rivers—a large one flowing eastward, and a small one flowing westward. In the lowlands near the coast are several inexhaustible salt lakes.

"The Southwestern mountains consist mainly of greenstone and trachyte, with tertiary chalk and marl. Here and there are beds of gypsum and isolated spots of Jura limestone and 'Vienna' sandstone. The North chain is built up almost entirely of limestone, overlaid on both flanks with sandstone, and the intervening plain of post-tertiary deposits of a very complex character. Marl, sand, sandrock and conglomerate are the principal elements. These deposits extend from the sea-coast up to 200 feet, or even 600 feet, and are spread over all the lower parts of the island, forming a not very fertile soil.

"Any one thinking of going to Cyprus would regard the climatal conditions as of the first importance, hence a little more detail on this point may be desirable. There is no doubt that the summer is excessively hot, so hot as to have a paralysing effect on the pursuits of men; on the other hand the winter is relatively cold, and often it becomes necessary to have recourse to artificial heat. Thymbra spicata and Poterium spinosum, the two commonest shrubs in the island, are frequently used to warm dwelling rooms. The change from one extreme to the other is very sudden, no spring or autumn interveniug. In the midst of summer the temperature often exceeds 100° Fahr. in the shade; and though it rarely falls so low as the freezing point in winter, the cold makes itself felt very much, because the means of protection against it are so inadequate. But the mean winter temperature is not sufficient to arrest vegetation. Indeed, there is what may be termed the winter flora, which is already over at the beginning of March. Winter (October, November and December) is the rainy season, whilst the summer is rainless with an uninterruptedly cloudless sky. Sometimes in winter rain falls during thirry to forty days in succession, and vegetation is reanimated and reinvigorated. The parching heat and continuous drought of summer, however, use up the accumulations of winter; brooks and rivers present dry channels, and vegetation ceases. During the rainy season the Pedias, the principl river in the island, often overflows its banks, and the contiguous land owes its fertility to these periodic inundations. Nearly all traffic in the lower part of the island is interrupted during this period. Occasionally the overflow assumes the dimensions of a flood, causing considerable damage. It is also recorded that no rain fell on the island during thirty-six years, in the reign of Constantine, consequently most of the inhabitants were obliged to leave the country. During the whole time (March to November) Unger and Kotschy were in Cyprus there was scarcely any rain. The harvest is over in May, after which there is nothing but the depressing stubble fields to be seen, look in what direction we may. Even flax, the latest of the crops, is already turning yellow. Cotton is the only summer crop, and that can be grown anywhere artificial watering is possible. In June and July the formation of dew ceases, and the atmosphere becomes charged with a dense vapor, which veils objects even at short distances. Added to this, the slightest wind cause clouds of penetrating dust to rise, and insects abound whose torment it is impossible to escape. The *malaria* prevails at the sea-ports, and all who can, avoid them as much as possible during the months of July and August. It is described as a dense white fog, which spreads over the plain, and even covers the mountains with its unwholesome vapor. Day after day the fierce heat continues, and all business is done in the evening or during the night. Sunstroke is frequent amongst those who venture out during the day."

## Commercial.

FARMER'S ADVOCATE OFFICE,
London, Oct. 1, 1878.

The past three weeks have been the dullest for the time of year that it has been our lot to record for some time. The extreme activity which prevailed during the latter part of August and first few days of September has been followed by the opposite extreme. The same applies to dairy products as well as grain.

WHEAT.—The shock caused by the sudden decline in prices was such as to cause the demand and deliveries to fall off almost to nothing. Both buyers and sellers are now beginning to recover, and there has been more disposition to do business the past few days. There is no doubt there will be a good demand for our wheats at their market value. The continental demand has fallen off for the time being, but will no doubt revive after they get over the shock of the late enormous shipments on their account. The crop in France is said to be the poorest they have had for many years.

PEAS.—The deliveries have been very light and the samples very irregular. In some sections the crop is almost a total failure between the bugs and bad weather. Other sections of Ontario report a fair crop with very few bugs. If corn was scarce we should look for higher prices, but in the face of an abundant corn crop and low prices in this article, as well as wheat, we can not see much chance for any very material advance.

BARLEY is being sold nearly altogether by sample, which is so irregular that any uniformity in price is impossible. We think good heavy, bright barley should be good property.

BUTTER continues very dull, and the country seems to be full of a class of butter that nobody seems to want. What is to be done with much of this article is a query to us. It may be the means of bringing about a much-desired reformation in this branch of trade, and if it does this it will have done good. The sooner the town and country storekeepers, as well as the farmers, become alive to the necessity for a radical change, the better it will be for the country and themselves also.

CHEESE is much the same as butter, only not so bad. A Montreal paper some weeks ago called the attention of its readers to the fact that the Western or Ontario cheese trade was being controlled by a cheese ring. Some one undertook to write or clear away these reports, but his attempts were rather weak and futile. Who compose this ring or how far they have been successful we are not going to discuss. One thing is certain—prices have been kept up or propped up above their real and legitimate level all the season, and only now are they down to a fair level with Little Falls and New York. A dealer told the writer a few days ago that he had purchased some 40,000 boxes of cheese this season, but out of this quantity only some 6,000 were Canadian, and why? Simply because he could buy cheaper in New York, and also whenever he wanted, whereas with us the market is in spurts—one week you can buy and the next you cannot at anything like the market price. This same dealer assured us he would buy exclusively in New York next season. It certainly looks very much like a ring, or an attempt to block the market, when dealers will go out and buy one or two factories at such prices as an advance of 15 shillings on the cable quotations does not warrant. There is too much speculation on the part of the dealers, and too much inclination to follow on the part of factorymen, or rather to get the same price or a little more than anybody else. The market continues dull, and in the face of the heavy fall make we can see no chance for any material advance. Some are of the opinion we shall not see the cable 50 shillings before the first of January, 1879.

APPLES are only a partial crop. Those having good winter apples should take care of them, as they will bring a good price if well kept.

POTATOES are but a medium crop in Western Ontario; in some places they are rotting badly. There are better reports of this crop from the eastern provinces and from the northern townships. They will be dearer in the spring.

HORSES.—The demand for common horses is not quite as good as it was two months ago, but a good animal will bring as much as ever.

CATTLE AND SHEEP.—There is a good demand for well-fed, heavy cattle for shipping, and sheep for export are in demand. The difficulty among buyers is to find them in large enough quantities in any one locality to make it an object to attract good buyers.

LONDON MARKETS.

London, Oct. 7, 1878.

The market was poorly attended, and supplies of all kinds of produce on a limited scale. Saturday's figures repeated.

GRAIN.

| | Per 100 lbs | | Per 100 lbs |
|---|---|---|---|
| Deihl wheat | $1 40 to 1 48 | Barley | $1 25 to 1 80 |
| Treadwell | 1 40 to 1 48 | Peas | 80 to 60 |
| " ordinary | 1 50 to 1 53 | Oats | 80 to 85 |
| Red | 1 40 to 1 43 | Rye | 80 to 90 |
| Spring | 1 10 to 1 30 | Corn | 85 to 95 |

Toronto, Oct. 5.

The day passed quietly in all branches. Holders of flour continued to ask $4.30 for superior. $4.05 to $4.10 for extra, and $3 95 for spring extra, but the demand was insufficient to result in business. The only sale reported in wheat was 3 cars of No. 2 spring at 87c f.o.c., the first grade being worth 88c to 90c, and the third 80c. Barley was very quiet; one car sold by sample for 99c on the track. The nominal quotations were $1.10 for the first grade, 90c for the second, 81c for extra No. 3, and 70c to 75c for ordinary No. 3. Peas and oats nominal.

On the street market 2,000 bushels of wheat were taken at 80c to 98c for fall, and 70c to 94c for spring; about 15,000 bushels of barley at 60c to $1.07 according to quality; 200 bushels of peas at 95c; 100 bushels of oats at 30c to 31c; 20 loads of hay at $1 to $15; 3 loads of straw at $8 to $12; a good supply of pound roll butter at 15c to 18c; a fair quantity of fair large roll butter at 13 to 14c; tub dairy at 13c to 15c; store packed at 8c to 10c; eggs in large lots rather plentifully at 12c to 12½c; and eggs from farmers in limited supply at 14c to 15c.

Oswego, Oct. 7.

Wheat—Quiet; No. 1 red Wabash at $1; No. 2. white State at $1; No. 3 do at 95c; No. 1 red State at $1.02, No. 2 do at 98c Corn—Unchanged; No. 2 Toledo at 48c. Barley—Quiet; extra bright Canada held at $1.35; No. 1 bright do at$1.30. Canal Freights—Wheat, 7¼c; corn and rye, 6¾c; barley, 6c to New York; barley, 5½c to Albany; 9c to Philadelphia. Lake Receipts—3,900 bushels of wheat, 93,000 bushels of barley, 939,000 feet of lumber.

## Flour Market.

Montreal, Oct 5.

The flour market is weaker, and buyers are asking for concessions of from five to ten cents all round. Quotations :—Superior extra, $4.47½ to $4.55; extra, $4.37½; fancy, $4.37½; spring extra, $4.25 to $4.30; strong bakers', $4.50 to $5; fine, $3.20 to $3.25; middlings, $3; pollards, $2.50 to $2.60; Ontario bags, $2.10 to $2.20; city bags, $2.20 to $2.25. No business is reported beyond a few small sales of double extra at $4.47½.

## Dairy Market.

Little Falls, N. Y., Oct. 7.

Over one hundred factories were represented. There was a better feeling shown. Prices, 9c to 9¾c. A bulk of 10,500 was offered, going for 9¼c to 9½c, several lots getting a ¼c better. About 550 farm cheese sold at 8½c to 9½c, most at 9c to 9¼c. 130 packages of butter sold at 18c to 21c.

## Live Stock Markets.

Buffalo, Oct. 7.

Hogs moderately active. Yorkers good to choice at $3 40 to $3.55; heavy at $3.50 to $3.85; 1,110 hogs to St. Louis; light at $3.15 to $3.30; mixed packing at $3.25 to $3.40; heavy shippings at $3.40 to $3.60. Receipts, 1,500 heads.

Chicago, Oct. 5.

The *Drovers' Journal* to-day reports as follows : Hogs—Philadelphias at $3.60 to $3.70; good shipping at $3.30 to $3.50. Cattle—Market steady; shipping steers at $3 80 to $4.80; Western cattle at $2.90 to $3.80: Texans at $2 to $2.80. Sheep—Unchanged.

Hogs—Light grades selling at $3.40 to $3.45; heavy mixed packing at $3.25 to $3.45; heavy shipping grades at $3.40 to $3.70. The market is active.

New York, Oct. 5.

Sheep—$4.25 to $4.75; calves—$5 to $7.

## Viger Cattle Market.

Montreal, Oct. 2.

This market was exceedingly dull to-day. Only one or two moderately good milch cows were offered for sale, and not over half-a-dozen cows of any sort were sold during the forenoon The prices obtained ranged from $10 for a stripper to $33 for a pretty good small-sized cow. Very few butchers visited the market this forenoon, as they had bought all they required yesterday. About 100 head of beef critters were offered for sale, but several droves of them were in the afternoon taken away to grass to wait for a better market. Some sales of thin and small cattle were made at very low rates. Mr. G. Bourdeau, of Lawrenceville, sold seven cattle, some of them full grown, for $70. These cattle cost more money at the place where they were bought. D. MacMillan, of Williamsburg, had four remarkably fine calves on the market to-day, but did not sell them, although offered $40 for the lot. The supply of sheep and lambs is larger than the demand, and, as the demand to ship to Britain has almost ceased, prices of good sheep are lower. Good lambs are in fair demand, but there are altogether too many poor ones brought to market. Several flocks were to-day taken away to pasture, as their owners could not sell for the original cost. Most of the lambs being brought to market are rams, which the farmers are selling at whatever they will bring, and thereby glutting the market with a poor article, causing considerable loss to the raiser. If these ram lambs had been changed to wethers while young they would be in better condition for sale now, and also could be kept over without any loss until the most convenient time for bringing them to market. Mr. Cross, of Chateauguay, sold fifty wether lambs to R. Nicholson, yesterday, at $3.25 each.—*Witness.*

## Montreal Horse Market.

The past week has been one of the dullest of the season in the horse trade, nor does the coming weeek give much promise of improvement in this line. There were no shipments of horses from this city to the United States yesterday, being the first Tuesday for several months in which there were no horses sent across the lines. The following are the shipments of horses made during the past week:—Sept. 11th—Two horses valued at $155, eighteen horses averaging $78.88, and nine horses averaging $79.77. Sept. 12th—One horse worth $115, and eleven horses averaging $89.90. Sept. 16th—Nine horses averaging $74.16. There is not much doing in the local market. Last Friday eleven horses were sold by auction at Maguire's Horse Bazaar, No. 679 Craig street, at from $33 to $70 each.

## British and Foreign Grain Trade.

London, Sept. 17.

The *Mark Lane Express*, in a review of the British corn trade for the past week, says:—The fine weather continued last week, and the harvest of the Kingdom is pretty well finished, under the most favorable circumstances. Such a fine ending is of inestimable value, although a great deal of wheat and still larger quantity of barley was irretrievably damaged by the wet weather that immediately preceded the fine period. At all markets an inactive demand for wheat prevailed, and although supplies up to Friday were not heavy, millers could not be induced to buy unless important concessions were made. The samples of barley are mostly discolored, but good malting quantities are readily taken. This grain, like wheat, is finding great variations in value. Business in maize and oats took place to the extent of consumptive requirements without a speculative demand.

## The Harvest in Britain.

The *Mark Lane Express* states that a large quantity of wheat has doubtless been secured under favorable conditions, but farmers seem to have been in a hurry to thresh, judging by the comparatively liberal offerings of new corn at the country markets, the samples showing unmistakable traces of deteriorated condition. There are, as usual, various reports as to the results of threshing, some farmers complaining of a very poor yield of corn in proportion to straw, and others expressing their satisfaction at a yield of from eight to ten sacks an acre. Harvest is now quite general in Scotland, and until the last week or ten days the weather was all that could be desired; but out-door labor has been a good deal interrupted of late by copious showers. The crops on the light dry soils, which suffered much from the drought in July, may yield variously; but in general a heavy yield of cereals is anticipated, and all that is now wanted is fine drying weather for the ingathering.

## Cattle Markets.

MONTREAL.

The market has been well supplied and more than one-half of the arrivals by rail have been for shipment to England. The local demand yesterday was considerably improved, owing to the cool term which we are now experiencing. Prices were if anything rather stiffer than last week, but not quotably higher. Hogs were plentiful, and sales were made at $4.62½ per 100.

TORONTO.

The offerings of cattle and sheep during the past week have not been nearly so large as usual, owing greatly to the washing away of roads and bridges by the late rain storm. The receipts of the former were about 1,500 head, and the demand for first-class animals fit for exportation was keen, as usual, but many of the low, inferior grades were left over, in the pens, unsold. Last week's prices were well maintained, $4.75 to $5 for first-class, $3.75 to $4 for second, and $2.75 to $3.25 for thirds. The arrivals of sheep and lambs amounted to about 2,000 head, and ready purchasers were found for all first-class stock. Last week's prices were repeated. Calves were scarce and wanted at $8 to $10 for firsts, $5 to $6 for seconds, and $3 to $4 for thirds.

## Latest from the English Markets.

Liverpool, Sept. 20.

Flour, 20s to 23s; spring wheat, 9s to 9s 8d; red winter, 8s 6d; white, 9s 9d to 9s 10d; club, 10s to 10s 4d; corn, 22s 9d to 23s; oats, 2s 6d; peas, 23s 6d; barley, 3s; pork, 47s 6d; cheese, 42s; beef, 67s 6d.

## Dairy Markets.

NEW YORK.

CHEESE.—The weather has been very warm, and goods generally have arrived in bad order; this, together with the limited demand, has caused a very dull and tame market. Our heaviest exporters are doing but little, as they have heavy stocks abroad, and until they are cleared, cannot operate to any extent. Perfection in quality has commanded 8¾ in some instances, but 8½ is full market for the run of finest. The grade below finest is nominal.

BUTTER.—The butter market is firm and all grades find ready sale at quotations. Fresh made is in brisk demand, as is also fine early. We quote fancy creamery 20 to 24 ; fine, 21 to 22 ; fair to good, 18 to 20. Fancy dairy, fresh, 20 to 22; fine, 17 to 19 ; fair to good, 13 to 15 ; medium, 10 to 12. Fancy factory, 12 to 14 ; fine, 11 to 12 ; fair to good, 9 to 10.

## Montreal Dairy Market.

CHEESE.

The attempt a few weeks ago to force prices up is now reacting, and the dullness, some of the dealers say, is almost unprecedented. The more natural course of the United States markets seems to be giving the Americans some advantage on their late makes. The reports from Utica, Little Falls and New York are all of a healthy nature, 8¾c being freely paid there with 9c exceptional. Sales are so few, either in Montreal or the Canada country markets, that it is difficult to give a correct quotation. We think 8c to 8¾c will cover the very extremes for August, while the earlier makes run from 8c downwards so fast that we cannot discover the bottom price.

BUTTER.

A hearty trade continues for the fresh-made, well-selected parcels, while all other kinds are either neglected or bought at very low prices. A few lots of Western have been taken, which, after very rigid selection, cost about 12c to 13e here, but buyers say there is no outlet, and if they repeat their purchases must do so at much lower rates Some of our creamery men seem to be learning a lesson—at least we should judge so by their want of success in selling their early makes. Townships continue to have the preference, as the farmers there seem willing to sell their butter while fresh. Reports from the English market and conversations with some of our exporters lately returned from there, do not give us hopes of much, if any, higher prices this season.

## Cheese Market.

This market has, for a week past, been gradually losing strength until to-day, it is only by dint of great effort that it is able to sit upright. From England instructions have just been received by cable not to ship July cheese, but to sell here, as stocks on the other side are accumulating. The receipts in New York are astoundingly heavy, and, as English operators are taking less, the market there is in a bad way, and prices are off, for even fancy sorts. According to a report of the cheese market at Ingersoll, on Wednesday, many factories refused to offer their August make, although 9½c was bid, and 11c, it is stated, was offered for August, September and October. Only a few miles distant from Ingersoll, and on the same day, the Woodstock cheese market was held, the report of which states that, owing to the dullness of the market, the several factories present did not register, and no transactions were reported. The attempt to lift prices by the Ingersoll "trio" previously referred to by us, may account for the improbable tenor of their report. The shipments from Montreal this week by English steamers will be 17,542 boxes, against 17,675 last week. Business here is at a complete stand-still ; the market is weak and prices are lower, and it is questioned whether 8c. could be obtained to-day for choice spot offerings.—*Montreal Star.*

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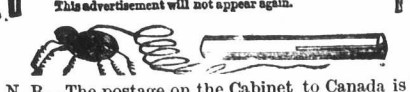

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