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A Family Journal, devoted to Agriculture, Internal Improvements, Literature, Science, and General Intelligence.

Vol. I.

TORONTO, SATURDAY, NOVEMBER 6, 1847.

No. 21.

MANURES.

MINERAL SALTS OR MANURES.

(Continued from page 149)

Having thus considered the salts derived from the animal, let us now proceed to those derived from the mineral kingdom. Among these we shall find some whose action is similar to that of the animal salts. That is, they are true nourishers of plants.

They afford, by the action of the growing plant, the same elements as the animal salts. Of this nature is saltpetre. Now, reader, I want you to understand by saltpetre, not only that well-known substance, but also that which has lately been much used in farming, South American saltpetre. This differs from common saltpetre, by changing its potash for soda. One step more, I want you to understand by saltpetre, not one salt, but, in farming, a class of salts; that is, a number having the same acid, which may be combined with several different bases which all act one way. Saltpetre, being a salt, of course, must be composed of an acid and a base. The acid is always aqua-fortis, or nitric acid. The base may be potash, or soda, or lime, or ammonia. These all may be called saltpetre. In forming saltpetre, it is generally that variety which contains lime and aqua-fortis which is procured. So far as we understand the action of salts, and this has been fully explained, the action of the varieties of saltpetre is the same; and were it not for the peculiar nature of the aqua-fortis, or acid of saltpetre, the explanation of the action of this salt might be referred to the general laws above set forth. But the acid of saltpetre is composed of volatile ingredients. It is nothing more or less than a compound of the common air we breathe. Surprising as it may seem, reader, yet it is not the less true, the common air is a mixture of oxygen and nitrogen. What a bland and harmless, yea, what a healthful blessing is air, not only to us, but to plants! It is a mere mixture, not a chemical compound, a mere mixture. In every hundred parts, eighty of nitrogen, twenty of oxygen. Yet if you compel, as natural operations are continually compelling the air to unite chemically, so that fourteen parts of nitrogen shall unite to forty parts of oxygen you will form aqua-fortis. Now, I do not mean to trouble your head further with the chemistry of saltpetre, than merely to say, that having thus shown you the composition and origin of the acid of all kinds of saltpetre, you will readily see, that a substance which affords such an abundance of nitrogen, cannot but be beneficial to plants. This nitrogen may, and probably does, form some portion of ammonia in the soil. It may enter as nitrogen into the plants, dissolved in water, as a very weak aqua-fortis.

We have said so much upon the action of ammonia and nitrogen, that you will perceive how important a part nitro is likely to play in manure. Not only does the nitrogen act here, but the oxygen, the other component of the acid, also acts. It acts upon the mould as it itself would. Besides, the mould of soil and manure imbibes and condenses this oxygen in its pores, and consequently heats a little; so that saltpetre, whether added as such to soil, or formed in manure, as it is always helps to warm a little the soil, like fermenting manure. So far as these effects are desirable they may be expected from the use of saltpetre. But this, reader, if you buy your saltpetre, is procuring a small effect at a great price. The action of the alkali of saltpetre

is not different from alkali in other shapes, and therefore if you have money to lay out for salts, let me advise you reader, to spend it rather for ashes than for saltpetre.

OF ARTIFICIAL NITRE BEDS.

But there is a fashion in manures as well as in other things, and saltpetre is now so fashionable that you may be inclined to use it. Be it so. I will show you, reader, how to make it for yourself, and at the same time form a large pile of capital mould. But as you have begun to inquire a little into the reason of things, let us go a little into the reasons why the earth under all barns where cattle are kept, why the plaster of old houses and cellar walls, always afford saltpetre. You will know that this is the case, and why? We have already told you, that the acid of saltpetre, that is, the aqua-fortis, is formed of the air we breathe. Now alkalies and porous bodies compel the constituents of air, under certain circumstances, to unite and form aqua-fortis, and this immediately unites to the alkali, and forms saltpetre. The best alkali to compel this union, is ammonia. Hence, where plenty of animal matter is fermenting, or rotting, or where plenty of urine is, there, porous bodies being present, saltpetre will be formed. Now this is enough for you, to understand the principle upon which I propose to you to form an artificial nitre bed for your own use. It has been found that the manure of twenty-five cows, asses, and mules, in layers of about four inches thick, with layers of the same thickness of chalky soil, first one and then the other, and now and then damped with the urine of the stable, produces from 1,000 to 1,200 lbs. of saltpetre in four years.

The heap is formed under cover, and occasionally shovelled over. At the end of two years, it is a mass of rich mould. It is left two years longer, with an occasional turning over, but it is not wet with urine for the last few months. The dung the farmer has always, he wants the porous chalky body. This may be furnished by spent ashes, mixed up with its bulk of loam. Hence the following rule may be given: One cord of clear cow-dung one cord of spent ashes, one cord of loam or swamp muck. Mix the ashes and the swamp muck well, and having hard rammed the barn-cellar floor, or that under a shed, lay a heap upon it four inches thick, of these mixed materials: then a layer of dung, three or four inches thick, and so on, till the pile is two or three feet high, topping off with loam. wet it occasionally with urine, keeping it always about as moist as garden mould. Shovel over once a fortnight for two years. The pile now contains about fifty pounds of several varieties of saltpetre, and mixed throughout with nearly three cords of excellent manure. It may therefore, be now used, according to the farmer's judgment. By thoughtful management, he may, after the first two years, annually collect as many fifty pounds as he employs cords of cow dung. But, however prepared, nitre affords, by its elements, nourishment to plants. All its parts act. Its alkali acts, and its acid acts.

ASHES.

It is easy to see, that salts, whatever be their name or nature, which are likely to be of any service to the farmer, are those only which, by the action of their acid or base, act on the earthy parts of soil, or upon the mould. Salts either poison, or nourish plants. The first, like the medicines we take, are good in small doses; the second, can hardly

injure, even by their excess. If we recur to the principle, with which we set out early in this essay, that the ashes of plants contain all their salts, then, rightly to know what salts are likely to produce good effects as manure, we should first study the composition of ashes. We have, in ashes, a great variety of substances. They come from the soil. They form a part of plants. The dead plant returns them again to their mother earth, or we, losing the volatile parts of a plant, its mould and ammonia, by burning, collect its salts as ashes. Let us see what these salts are made of. In the first place, you know, all salts are composed of an acid and a base.

<i>The bases are</i>	<i>The acids are</i>
Potash & Soda,	Carbonic, or carbon united to oxygen.
Lime,	Phosphoric, or Phosphorus, do
Magnesia,	Sulphuric or Sulphur, do. do.
Clay,	Muriatic, essentially composed of chlorine.
Iron,	
Manganese,	
Seliz, or the earth of flints.	

Now if we throw out the carbonic acid, which has been formed in burning, we have left in ashes, three acids, which are united with the bases, and may form the following salts in plants, namely: Glauber's salt, Epsom salt, common table-salt, bone-dust, a salt of lime, and what we may term a bone-dust salt of iron, or phosphate of iron, plaster of Paris, or gypsum, copperas, alum, and some other salts, which need not be enumerated. Our list comprises the principal, and those most likely to be used in farming. Well, now, the lesson to be drawn from this composition of ashes is this, that there is scarcely any salt occurring in commerce, which may not be used in agriculture, instead of those found ashes. In fact, almost all salts which occur in a large way, as refuse materials from manufactures or sources, have been used, and all with greater or less success, as manures. And if you cast your eye over the acids and bases of common ashes, this seems quite reasonable. It is not expected that a plain farmer, possessing little or no chemical knowledge, should be able to tell beforehand, what the effect of a salt would be, applied to his land; but if he understands what the composition of ashes is, he may be sure that in any quantity in which the salt is likely to occur, it cannot be injurious, provided it is mixed up with plenty of mould, and a little ashes, or alkali, which will kill or neutralize any excess of poisonous acid.

In ashes, we have one part which may be leached out, and a part which remains after leaching, called spent ashes. Let us see then in leaching, what parts we take away. First, we take away all the acids except the phosphoric. Secondly, we take away nearly all the potash and soda. What is left? The phosphoric acid, and all the bases. It is evident, therefore, that the strength of ashes can never be wholly leached out, if that depends upon the salts. In spent ashes, we have nearly all the bone-dust left; and, besides this, a portion of what is usually considered the real strength, that is, the potash. This is chemically united to certain of the other constituents of ashes. You cannot leach it out, leach you never so long. Upset your leach-tubs, shovel over your spent ashes, mix it up with fermenting manure, where a plenty of fixed air is given off. Here is the secret of the value of spent ashes, so far as the potash or ley strength is concerned. This exposure to air, to carbonic acid, lets loose the potash, which was chemically combined with the other matters. Water would never have done this. Mark now a practical lesson, taught here by chemistry, and confirmed by experi-

ence. Leached ashes must never be used on wet soil, if we want its alkali to act. The close wet soil, perhaps even half covered at times with water, excludes the air. The carbonic acid of air, that which alone extracts the alkali from spent ashes, cannot here act. There is this other lesson to be learned from these facts, that it is chiefly the alkaline action, which is wanted from spent ashes. Hence no one who thus understands the source, and the true value of ashes, will allow the alkaline portion to be first leached out, unless he can find a more economical use for it, than its application as a fertilizer. Perhaps no fact speaks louder, that the great action of spent ashes is that of its potash, than this, that where we prevent that from being extracted, the spent ashes are of little value. If, then spent ashes derive their great value from the potash, much more will unleached ashes derive their value from their potash.

Now, reader, the point to which I have led you, in these remarks, is this, that the more alkaline any salt is, the better is it for manure. Hence, as a general rule, about the use of ash, pearl ash, common ashes, barilla ashes, white, or soda ash, are the best. And as these in all their various shapes, are the cheapest and most common articles, so you need not run after a long list of other salts. Next in value to the real alkalies, you would derive the greatest benefit from them. Next to these comes peat ashes. You will know these are of no value to the soap-maker. But not so to you. They show only traces of alkaline power. But treat them as you did spent ashes. Their power, independent of their bone-dust, which is by no means small, and their plaster, which is still greater, and their lime which is perhaps the greatest, lies in the alkali, which is locked up, as it is in spent ashes. Treat them, therefore, as you did spent ashes, and then peat ashes will and do afford alkali. So too coal ashes, even your hard anthracite ashes, yield all the substances which spent ashes do. It is easily seen, therefore, when, how, and where, spent ashes, peat ashes, coal ashes are most likely to do good. Perhaps we may not have a better place to state the fact, that a cord of soap-boiler's spent ashes contain about fifty pounds of potash. When we add to this one hundred and seventeen pounds of bone-dust, and about a ton and a half of chalk, or carbonate of lime, which acts chiefly on the soil, and so comes not now under consideration, it is seen, that there is no cheaper source of alkali and salts, to one within reasonable carting distance of a soap-boiler than spent ashes. They are marl, bone-dust, plaster, and alkali combined.

VARIETIES OF SOIL.

Some of the most valuable improvements in modern agriculture proceed from the discovery that all plants do not exhaust from the soil, in which they grow, the same ingredients or component parts of it; and that no two plants of a different kind abstract the same proportion of each ingredient.

Hence, beyond all question, it is established: 1st, That every kind of soil is, in its natural state, fitted for the production of some one or other of the thousand plants that cover the earth; and 2d, That the addition to it, by human labour, of those ingredients or substances of which any soil is deficient will fit it for the production of plants that require those ingredients.

Careful examination has also shown that silicious or flinty matter not only constitutes a large portion of all soils, but also the largest ingredient in the composition of oats, wheat, Indian corn, rye, and barley. It also demonstrates that certain other substances, of which lime is always one, are contained in these and other plants, a very large portion of it entering into the composition of clover and corn.

From these facts, it follows that the addition of lime to soils from which it is naturally absent, must confer upon them the power to produce those useful plants, especially corn and clover, so far as unproductiveness of them was caused by its absence.

The same may be said of potash, soda, magnesia, and certain acids, all of which are ingredients in most of the useful plants.

In this view of our soils, the presence of limestone in large quantities in any country, is second in value to that of no other mineral, not even excepting coal or iron.

For as the productions of the farmer are indispensable to persons in every business, and as the proper application of lime to the soils which are destitute of it will convert them into fruitful agricultural districts, the value of limestone must be beyond that of any mineral we possess.

Nor does this good effect alone follow the addition of lime, or any other single substance of which a soil happens to be deficient. The mixing of entire soils with each other often has the same result. For instance, the carting of a certain proportion of the surface of rich boggy or bottom land upon upland, or the reverse; the addition of pure sand to stiff clay fields, or the application of any other soil to one of an entirely dissimilar character, has generally the same beneficial effect.

In all these cases, the applied soil being dissimilar from that to which it is added, the chances are, even without the certainty of a scientific analysis, the productive substances have been obtained, and consequently that productiveness will be increased.

In this way there is great truth in the remark, that, in the hands of a judicious farmer, almost every farm contains, within its limits, means for its own fertilization.—[Exchange Paper.

PACKING APPLES FOR SEA VOYAGES.—The following method is described by a writer in the Farmer and Mechanic, which he adopted for packing fine and selected apples for exportation to England. When they arrived at Sheffield, every one was sound. The very finest only were selected, and the moisture, if any, carefully wiped off; each apple was then rolled in clean, dry, wrapping paper. The barrel was then thinly lined with straw, and the apples placed in as closely as possible, without jamming them, and then headed up. An inside lining hoop prevented all danger of the heads being knocked in by accident.

AGRICULTURE, says Socrates, is an employment the most worthy the application of man, the most ancient and the most suitable to his nature; it is the common nurse of all persons, in every age and condition of life: it is a source of health, strength, plenty and riches; and of a thousand sober delights and honest pleasures. It is the mistress and school of sobriety, temperance, justice, religion, and, in short, all virtue, civil and military.

A PROFITABLE DAIRY.—Mr. W. S. Euner, sold to Mr. Liversey, of Preston a few days ago, 38 cheeses, the produce of 13 cows in 38 days. The weight was 13½ cwt. and the price 62s. per cwt. giving a total of £12 12s. 6d.—[Lancaster Guardian.

Good fences make good neighbours.

TO CORRESPONDENTS.

J. M., Bradford, received.

J. B., St. George, Woodstock, and Ingersoll. All received. Your expansive arrangements are judicious and cannot fail to produce extensive results. Cover the whole surface as quickly as convenience and discretion will permit.

T. H. N. It would not answer. Were we to make our journal monthly as you suggest, it would lose all the advantages of a newspaper, which form a new and decidedly attractive feature in these days of Railroads and Magnetic Telegraphs, monthly journals, except of a decidedly literary character, are altogether behind the age. We assure our friend that we cannot go back to the old "dog trot" system. It is of too much importance that the Farmers be furnished with regular intelligence of the state of the markets, as often as the English news arrives.

W. A. S., received.

CANADA FARMER.

November 6, 1847.

VISIT TO GRAND ISLAND—MR. ALLEN'S DEVONS & SHORT HORNS—BERKSHIRE'S, BREMEN GEESSE, &c., &c., MR. SOTHAM'S HEREFORDS &c.

Business having detained us at Buffalo for a few days, since our last issue, we enjoyed the high gratification of spending one of them with Mr. L. F. Allen in the examination of his Farm and Stock on Grand Island, a most delightful spot in the Niagara River. This Island is about 12 miles in length, is heavily timbered and of a rich loamy soil. The upper end of the Island where Mr. A's farm is situated is within sight of the spires and chimneys of Buffalo and commands a most lovely landscape. On either side flows the noble river, tame and peaceful, giving here, no indication of the rage and fury with which it allows itself to be overcome only a few miles below. To the right are the well cleared fields and comfortable farm residences of Her Majesty's subjects in the township of Bertie. On the left is the American shore studded with neat white houses, while along the margin of the stream the Canal boats drawn by two and three horses *ad tandem* are constantly passing. In the foreground is Black Rock, two miles distant but distinctly in view. Two or three little Islands diversify the landscape in that direction and afford covert for the sportsman in pursuit of the Wild Ducks that abound in the neighbourhood.—Mr. A. talks of building a residence on an elevated piece of ground at the head of the Island, and with such delightful scenery all around, removed from the smoke and din and noisome influences of the city, and yet within reach of all its real advantages, it seems to us the very spot for a little Paradise.

We were so fortunate as to make acquaintance with Mr. W. H. Sotham, another distinguished breeder, who has lately removed from the neighbourhood of Albany and rented a large dairy farm on the banks of the Niagara, a short distance from Black Rock. Mr. Sotham's favorite breed is the Hereford, which, he contends, is better adapted to this country than either the Short Horns or Devons. After looking at some very fine calves, a splendid four year old heifer, which had just given birth to her first calf, and an old cow, imported by Mr. S. from England, we, in company with the latter gentleman, seated ourselves in Mr. Allen's boat, and "set sail" for the Island. The first thing that attracted our attention was a small herd of Berkshire hogs. They were all young, and not remarkably large for their age. Their ancestors were selected from some of the best in England, and imported by Mr. Allen's brother. Mr. A. is trying a cross with the Suffolk breed, which bids fair to do well. The Berkshire is a beautiful animal, small bone, light ossal, a ready disposition to fatten, and makes sweet, tender pork; but it seems that they have not generally done well, nor, in many cases, answered the expectations of those who have tried them. Mr. A. says they have not degenerated in his hands, but it has not been so with others. The truth is, the best breeds of domestic animals, as well as the best varieties of grain and vegetables, require the best manage-

ment; a constant application of skill and care to maintain, and perpetuate their superior qualities. The man who lays out large sums of money to stock his farm with Durham, Devon, or Hereford cattle, Berkshire pigs, and South Down, Leicester, or Costwold sheep, and then pursues the same old system of neglect; leaving every thing to take care of itself; or, when he does interfere, obstructing nature's efforts instead of helping or taking advantage of them; allowing the butcher to cull his flocks of the best—the conservative individuals, whose superior character would keep up the general standard, had much better invest his capital in some other way. Not but that the improved breeds will, even in bad hands and under the operation of degenerating causes, still maintain a superiority over the common kinds in like circumstances, but the difference will not be sufficient to justify their original expense. The tendency of everything of this kind is downward. It would seem to be a part of the "pneumonic curse" that those products of the animal and vegetable kingdom essential to man's existence, should demand his constant care, and the exercise of his highest skill to prevent them from "running out."

The plan of Mr. A's barn pleased us very much, though its position near the edge of the river does not facilitate the increase or add much to the value of the manure heap. He intends removing it to a situation where his yard will not be so well drained as at present. The main building is about 100 feet long with a narrow floor extending through it lengthwise. On each side is a mow, also running the whole length of the barn, except a space of 4 or 5 feet at each end for a passage. A lean-to is attached to each side of the main building wide enough to admit of a passage next the barn and along by the head of the Cattle, and another passage behind them. These lean-to's are done off into stalls about 7 feet wide, boarded up as high as a cow's back with a manger in front and a tight box or trough in each corner. Two cows stand in a stall, and being tied to rings at the opposite corners, cannot injure or eat the food of one another. The sides of the barn under the lean-to's are not boarded, so that feed from any part of the mow may be readily thrown into the passage before the cattle. A room is partitioned off in the end of one of the mows for storing corn, grain, pumpkins, &c., that may be required for, perhaps, a week's supply. By this plan you can go before or behind your cattle as occasion may require. If any more hay is thrown down than is necessary it may be left in the passage and is neither trampled nor breathed upon. Small quantities can be given at a time, (the best mode of feeding) and the mangers replenished without causing the great additional labour that must be encountered under the usual arrangements.

As a stock-barn we do not think this plan could be much improved. There is nothing expensive, complicated, or fanciful in its construction; its excellence consists in the simplicity and handiness of its arrangements. After looking at some beautiful Bremen Geese, half as large again as the common kind, we proceeded to the field to see the cattle. The first we came to was a fine lot of calves, Durhams, Devons and their grades. And here arose an interesting discussion as to the proper treatment of young cattle. Mr. Allen contended that calves should not be "forced," that they should be fed moderately, neither made fat nor allowed to get poor, but kept in a good, healthy, growing condition. He did not allow his to suck one cow long, much less two. Mr. Sotham agreed to this doctrine, and in the presence of two such experienced and noted breeders we were very chary of expressing an opinion, we only ventured to ask questions. It occurred to us that the system which our friends were so warmly advocating was just the system that is practised by ordinary farmers, and we wished to know why it was not attended with better results? "Ah, that's in the breed.

You can't get good animals from worthless parents." There it is again. Short Horn, and Hereford men wont admit that there is any excellence in the poor "native." No "good can come out of Nazareth." Now, assenting generally to the proposition that the young animal should be allowed to develop itself without the aid of extra doses of rich food, and that the forcing system must ultimately have a pernicious effect upon it for milking, & breeding purposes at all events, yet we think that in rearing the improved and native breeds, the difference in the result is not wholly owing to the difference of breed. The truth is the same system is not followed in both cases. Though native calves are seldom injured by over feeding, they are frequently stunted, and we believe it is better to err on the side of too much, than too little. The breeder of the "pure bloods" is careful to select the best animals for stock getting. He never uses an inferior bull and has to wait some time and reject a half dozen or more, before he finds one that will answer his purpose and with which he can hope to keep up the character of his stock. The individuals that don't come up to his standard he turns into beef and sends to the slaughter house. Every now and then he procures a bull from another herd and of a different family. By judicious crossing, and careful pruning and good feeding, he is able to breed good stock. With high excellence to begin with in the ancestor, he succeeds in retaining it in the descendant. Now, who will say that this system would not improve our natives—would not in time make them equal to any imported stock? Take the best that can be found to begin with, and on the principle that "like begets like," a rule that works both ways, how long would it be before we should have an improved breed of natives like Col. Jacques' "Cream pots" capable of transmitting their good qualities with as much certainty as any other? But it may be asked what need then of importing Durhams, &c., at great expense, and paying high prices for their stock? For the simple reason that in them we have ready to our hand what has cost long years of labor and skill to produce, and what can not be accomplished by any shorter method now. Their good qualities, as far as they can be, are established. We have a vantage ground to start from, and thus time and expense, and an exercise of skill that very few of us have, are dispensed with. But the fact that some skill is required to prevent the good qualities of the pure bloods from running out, is of itself proof that they are not a superior race in their original—that they are not an "old aristocracy" whose inherent nobility reaches back to the days of William the Conqueror. The practical conclusion that we are driving at is just this: Let us have good stock, the best we can get, because they are the most profitable. The "improved breeds" are the best, the several kinds according to the purposes for which they are wanted. Therefore, let us procure one of the improved breeds. But without spoiling our syllogism, we must add this conclusion; where we are not able to stock our farm with Durhams, Devons or Ayrshires, let us not neglect the natives; especially let us not do so under the notion that they are incapable of improvement, that between them and the former there is an "impassable gulph." Time and care will enable us to cross it.

In Mr. Allen's herd we saw many fine animals, though none of them were in what might be called high condition. They run through a large range of pasture, (most of the land being newly-cleared, during the day, and at this season are shut up at night, and fed upon pumpkins and a little hay. They all give milk, which is sent twice a day to Buffalo and sold to the dealers who keep what they call "milk depots," where it is purchased by the citizens. Mr. A's Devons pleased us more than his Short Horns, the latter of which, with a few exceptions, seem to us to have suffered from the numerous "drafts," that have been made for the service of the State.

The fame of Mr. A's herd has attracted

purchasers from all parts, who evidently have laid their hands on many of the best. He has however this year been using a famous imported bull, we forget the name, whose produce will probably restore the excellence of his herd. We spent 3 or 4 hours in looking at the cattle and talking over Mr. A's fields of clover, corn, beets, carrots, &c., (he grows but little grain) enjoying the pleasure and profit of an interchange of thought with intelligent minds and the refreshing, vivifying influences of delightful scenery. On our return we took a substantial English dinner with Mr. Sotham, who by the way is an Englishman, promising to spend the next day with him in viewing his splendid herd of Herefords. The weather we are sorry to say prevented us, but we shall avail ourselves of the invitation on another occasion.

Mr. Sotham's stock is the best of the breed in the United States. He was the first to import it, and has almost single-handed defended his favourite against the attack of about 50 Short Horn men, who publicly, and privately kept up an incessant fire upon him for three years. He has shown the spout of a genuine John Bull, and the result has been that this breed are more and more sought after, and no one, he says, has ever purchased an animal of him who became dissatisfied or did not apply for more. He never sells a calf for less than \$100 and has more orders than he can possibly fill. We shall examine the character and claims of this breed in connection with Mr. Sotham's herd, in a future number.

FARMER'S CLUBS, AND ESSAYS ON AGRICULTURAL SUBJECTS.

With all our Agricultural Societies, Provincial, District, and Township, we have nothing in the shape of Farmers' Clubs, as they exist in New York and some other cities of the United States, as well as in some places on the continent of Europe. The New York Farmers' Club, for instance, holds weekly meetings in that city, at which essays are read, new improvements noticed, & their usefulness discussed by scientific men. Some extremely valuable papers on various subjects connected with Agricultural improvement are read before the club, and the substance of their contents is afterwards disseminated through the medium of the Press, over the length and breadth of the land. We think this practice might be advantageously copied here, with such modifications as our different circumstances may render necessary. We will venture to suggest the outlines of a plan which it may perhaps be beneficial to adopt as a whole or in part. We do not claim originality for our plan, which is simply a copy. To appropriate it without acknowledgement would be one of those bare-faced pieces of plagiarism with which, ever and anon, honest men are sickened and disgusted. We may remark *en passant* that to appropriate to one's own use, and claim originality for, any practice which had previously been established in another country, is a species of mean and most reprehensible larceny.—Yet this is frequently done, and we shall lend our aid to bring about an honest practice and a purer tone of literary morality, by holding up the plagiarist to that public disapprobation which is his just punishment. But to our plan. Toronto occupies a central position, and is therefore a proper place in which to establish a *Farmer's Club*. If any of the machinery of the Provincial Association can be rendered available in forwarding the object, it would be well. Perhaps it might furnish as much material as would form the nucleus of the projected Club. Having determined upon the plan of organization, which, of course, would be quite simple and in accordance with the form and practice most approved in such cases, let it be determined at what intervals the Club should hold its meetings. Once a month would probably be sufficiently often to preserve as much interest as would have to be excited before life could be infused into the thing; and it is more than probable that it would be quite as

often as the public would care to direct even a momentary attention to the matter.

A competent Secretary should be appointed, one of whose duties it should be to read the Essays that might be presented to the Club. The adoption of this plan would be absolutely necessary, as Essays would, supposing a proper public interest to be taken in the matter, frequently be received from persons living many miles—in some cases hundreds—from the city whose attendance to read their own Essays would be impracticable. The Essays, or the substance of them, might afterwards be published by the agricultural Press, and thus the advantages—for none but those possessing real merit should be published—to be derived from their dissemination, be secured to the public. On subjects of great importance, with a view of bringing out the best available talent, it might not be out of place to set apart a fraction of the funds of the Provincial Association to be distributed in prizes to the successful competitors. Indeed we think it the bounden duty of the Provincial Association to adopt this course. We might assert, without the fear of successful denial, were we disposed to make awkward comparisons, that the carrying out of this plan would produce better results, than can flow from the prevalent practice of driving one animal all round the country to carry off the "first best" prizes at five or six different places.

We submit these suggestions for public consideration, feeling confident of the good effects of which their practical adoption would be productive.

THE HESIAN FLY.—We see numerous complaints in the American journals, of the operations of this insect. The weather this fall has been peculiarly favorable for the Fly, and we should not be at all surprised if it extended itself over the whole Province, destroying next year an incalculable amount of Wheat. Our readers would do well to examine their fields and ascertain to what extent eggs are deposited on the young plants. We should be glad to hear the results of such examinations. The following is one of the statements we find in a Western paper.

THE FLY IN WHEAT.—We hear very general complaints from farmers residing in the adjoining counties in Indiana of the re-appearing of the fly in their wheat fields. Many have already ploughed up and re-sown their fields in consequence. They have proved very destructive in Laporte and St. Joseph counties particularly.—[Chicago Journal.]

Blenheim and Wilmot—Mr. Master's barn—Hogsville and Hamburg—Easthope—Potatoe disease—Winter-killed Wheat, &c., &c.

Stratford, Huron District, Oct. 23, 1847
 DEAR SIRS.—I deem it unnecessary to make an apology for the liberty I take of once more trying to give you some idea of the different sections of the country, through which I have, since my last, had the pleasure of travelling. Leaving the village of Ayr, in the north western part of the township of Dumfries, I proceeded to the north for a distance of two miles, or a little more, then turning to the west, into the township of Blenheim, I came into quite a large settlement of English Scotch, Dutch, Canadians, &c. You know Canada is settled by people from all parts of the world, and I believe they try the experiment of getting as closely together as possible back here, in the north-eastern part of Blenheim. This is rather a newly settled part of the country, although you will here find some well cultivated farms, good barns and houses, and also some very good orchards, and many other things which assure the traveller that the spirit of emulation is either a native of, or an emigrant to, the newly settled townships, as well as those which have been settled for a great number of years. The soil of Blenheim appears to be most excellent, and well adapted to growing every description of grain, roots, and also a great variety of fruits. The people in this section of the country, also, have not been entirely unmindful of Him who sends the early and the latter rain, and who gives fruitful seasons, and abundant harvests; but have here erected a house wherein they can meet and praise Him for all his benefits. Proceeding to the north from this place I came to the line between *Blenheim and Wilmot*, then turning to the west, took the road leading to the Huron District. The different sections which I visited in Wilmot, although they are new, have a pleasant appearance, and without doubt, will, one day, not far dis-

tant, be one of the best sections of our beautiful and beloved country. Here are some farmers whose attention to improving their farms, stock, &c., is worthy of much praise. And now let me remark, that one of the best barns in Canada West is to be found in the southern part of Wilmot. It is the property of a Mr. Masters, D. C., who very kindly took me through the different apartments. I do not intend to impose on your patience by telling how many cranks, studs, braces, rafters, &c., there are in it, for if you should ever want one, I rather think that some, perhaps all, of your gentlemen carpenters would be able to tell, even without any advice from those who, at most, know very little about it. I will just say that the barn is a *bank barn*, and is three stories high. On the ground floor are his stables for both horses and horned cattle, with an *entry* or *hall* between the horse stable, and the stables for his horned cattle. On this floor also are *rooms* for storing his root crops, &c. In the second story are his granaries and other apartments for storage; and in the third story you find his threshing floor occupying the centre, and on each side his *mows* for grain, hay, &c. In this upper floor are several holes, with I believe, *pipes* or *spouts*, to conduct the *cleaned* wheat, oats, barley, and all other kinds of grain to their respective *bins*, thus saving a great amount of labour; for when you clean your grain, i. e., separate it from the chaff, you have but to place the front part of your fanning mill to any one of these holes, and your grain, (like the prices which our merchants pay for it,) will fall; and be conducted to whatever *bin* you choose. Let us now leave this place and pursue our road to Hogsville, a small village, very pleasantly situated in the southern part of Wilmot, containing three or four stores, several shops of different tradesmen, and many other buildings, as the *criers* generally say, "too numerous to mention." Proceeding to the north-west from this village, three or four miles will bring you to Hamburg, another small village. Here let me remark that on "Smith's Travelling Map" Hogsville is represented as situated where Hamburg is, and Hamburg as situated where Hogsville is, or rather the names are improperly placed.

Leaving these places you proceed to the West, and 6 or eight miles will bring you to the line between Wilmot in the south western part of Wellington District, and Easthope in the south eastern part of the Huron District. I cannot say much in favour of the township of Easthope, if the land on each side of the road leading to the village of Stratford, may be considered as a *specimen*. However, I was told that this was the poorest part of the township, Stratford in the Western part of this township is a village of some considerable importance containing some very good buildings, and exhibits much enterprise and good taste. I will finish my letter by saying that many, very many complaints of the Potatoe disease, and many, of the wheat being *winter-killed*, although the *berry* is very good. Wishing you, Gentlemen, success in disseminating useful knowledge and in publishing a paper destined to be the most extensively circulated, as it is the most valuable and useful, at present published in Canada, I, with pleasure, subscribe myself.

Your Obed't Serv't,
 THE FARMER'S SON.

GENTLEMEN.—I send you the following recipes, which I have seen tried with success. Others may find them useful. W.

CURE FOR SPAVIN.—Take a quart bottle, into this put a quantity of strong beer, then put in 2 oz. of alcohol, 2 oz. of spirits of turpentine, and 2 oz. of aquafortis, then fill up the bottle with beer. *Application.*—Rub on with the hand about half a table-spoonful, continue to rub until a *smoke* arises from the part anointed. If the horse be used and there be danger of his getting wet, the part anointed should be rubbed with *fish worm* oil about 2 or three hours after the application of the liquid, otherwise the hair will be likely to come off.

If to the above composition you add one oz. of Camphure gum, you will have a certain cure for that painful complaint—Rheumatism—the part or parts affected to be thoroughly bathed with the preparation—this has been known to cure, in a short time, persons unable to rise from their bed.

SIMPLE AND CERTAIN CURE FOR HOOF-BOUNDS.—Take an equal quantity of *tar* and *whale oil*, and half the quantity of spirits of Turpentine. Heat the *tar* boiling hot, then stir in the oil, take off the vessel from the fire and stir in the turpentine. Apply three

times a day until the hoof becomes soft—the shoes must be spread and set frequently.

Foreign Agricultural News.

We have determined to select hereafter from our foreign exchanges a *Summary of Foreign Agricultural News*. We shall, if possible, give some extracts of this kind in every number, as we feel assured they will be generally acceptable to our readers, while they will add to the interest and increase the value of our Journal. We shall endeavour to give a sort of daguerreotype picture of the advancing state of agriculture in Europe; thus combining News and amusement with solid instruction.

Importation of Cattle into England.—An Account of the cattle, sheep, and swine imported into Great Britain from Ireland, from the 5th day of April to the 5th day of July, 1847, has just been published by order of the House of Commons.—Of oxen, bulls, and cows, the number during the quarter was 31,917; of calves, 4423; of sheep, and lambs, 88,178; and of swine, 14,750.

Efforts are being made in New South Wales, to establish mulberry grounds and breed silkworms.

The Fruit Crop on the Rhine.—"In the memory of man," says a letter, dated Wiesbaden, the 23rd inst., "the crops were never so abundant as this year in our country. All the trees are over-loaded with fruit, and we cannot procure a sufficient quantity of stakes to support the branches. The Government has ordered the administration of the forests to provide a supply for the farmers and horticulturists, and no less than £0,000 have been already demanded. Apples are particularly abundant. The English have purchased an enormous quantity of that fruit, which is to be embarked in steamers for London."

The Potatoe crop turns out so exceedingly productive around Salisbury this season, that one grower has realised £32 per acre for his crop, although he had sold at moderate prices.—[Salisbury Journal.]

There is now to be seen growing in the gardens at Bouthly Hall, near Grantham, the residence of John Litchford, Esq., under the management of Mr. Clarke, a gigantic Scotch thistle, of the following dimensions:—Height of the leading stems, 7 feet 7 inches; length of some of the principle branches, 11 feet 4 inches; round the stem, 9 inches. When it was in full blow, it had a most splendid appearance, having upwards of 209 flowers upon it, of a bright purple colour.

The *Gardener's Chronicle* says that, in the South of England, turnips sown with super phosphate of lime as manure, are never troubled with the fly.

A *Spansul* of scraped horse-radish, put into a pail of milk, will keep it sweet for many days longer than the ordinary period.

From the last parliamentary return, the number of licensed public brewers was about 2600, and the quantity of malt used by them upon the average amounted to 17,933,684 bushels annually.—The number of licensed victuallers who brew their own beer is estimated at about 27,000 and the quantity of malt consumed nearly eight millions of bushels; about three millions more were brewed by beer-sellers for consumption on the premises.—[English Paper.]

Rural Education.—The arrangements which for some time past have been in progress at the royal schools in Windsor Forest, with a view to the introduction to a course of instruction in gardening and in cottage economy, are now nearly completed. Several acres of garden ground are in full cultivation by the boys. Part of the ground is divided into allotments, which are cultivated for the benefit of the parents of each scholar; the rest of the garden is worked in common by all the boys. A spacious kitchen, &c., wash-house, store rooms and dining hall, have recently been added to the school buildings. The garden furnishes part of the provisions of a dinner which is daily cooked by the girls for 120 scholars. Her Majesty has provided a neat dress for the girls, which they have made up, and the clothes of all the scholars are to be washed at the school by the girls. The royal bounty has thus gracefully assisted the families resident in the Forest by such means as cannot fail to have a permanently beneficial influence. Four pupil teachers have been apprenticed in the royal schools. It is understood that they are the first apprentices under the recent minutes of the Committee of Privy Council.—[English Paper.]

Hints to Farmers & Gardeners.—Small farmers and cottagers will find it well repay them now to sow cabbage-seed upon the land where they are getting their potatoes; as an ounce of seed will produce about 6000 plants at the least. Supposing the seed to cost 8d. per ounce, strong early plants in the spring readily fetch 2d. per score; so that 6000 plants would amount to £2 10s., a fair return for so small an outlay. The plants would be removed in time for the resetting of potatoes in the spring.

Use of Green Elder.—An individual of much practical experience informs us that green elder, deposited in and about the mows of hay and grain, will prove an effective preventive against the depredations of mice and rats.—[Yorkshireman.]

Sleighing and Green Corn.—A private letter from Chicago, Ill., dated the 14th inst. says: "We had a heavy fall of snow last night and this morning. Sleighing bells were heard in the streets at the same time that we were cutting green corn for dinner; something unparalleled in the history of the weather."

Civil and Social Department

OPENING OF THE PROVINCIAL NORMAL SCHOOL FOR THE TRAINING OF TEACHERS.

This event, which marks a new era in our Common School system, took place on the afternoon of Monday last, at the Old Government House, in this city. There was a tolerably fair attendance, though it did not appear that many had come from a distance to be present on this interesting occasion. Lectures were read by Dr. Ryerson, Superintendent of Education; by Mr. Robertson, Head Master; and by Mr. Hinds, who, we believe, holds the situation of Lecturer on Natural Philosophy and Agricultural Chemistry. Mr. Ryerson referred to the establishment of Normal Schools in Prussia, Switzerland, France, Britain, and the United States, and to the good effects which flow from such institutions. He anticipates that the number of students in one year from the commencement of the institution, in January next, will be 100.

Taking the Doctor's estimate for the basis of a calculation—though the number is nearly five times as great as attended the Normal School either of Glasgow or Dublin, during the first few years of their establishment—with a view of arriving at a conclusion as to how long a period will elapse before the effects of this institution are felt upon our schools generally, it follows that the number in attendance at the Normal School at one time, will give five teachers, regularly trained, for each of the twenty Districts of Upper Canada. If each student attend only six months, two hundred teachers, having the requisite qualification, will leave the Normal School in a year; being ten for each District in Upper Canada. The present number of teachers in Upper Canada is given in the Official Report at 2,700; but making allowance for some not reported, we will set down the number at 3,000. No teacher will be allowed to conduct a school receiving Government money, unless he has a certificate of qualification from the Head Master of the Normal School. It would be impossible to estimate precisely what proportion of the 3,000 teachers at present employed, will be allowed, or entitled, to certificates without undergoing a course of regular training. But it is evident that it will be impracticable to fix the standard of qualification much above the average attainments of the mass of teachers now employed; eitherwise the machinery of education would be brought to a stand. Elevating the standard of the teachers' qualification will therefore be a work of time. If half the teachers now employed, require no further training to entitle them to certificates of qualification—when the standard of qualification has been definitely fixed—there would still be 1,500 who would have to pass through the Normal School. Without making any deduction for deaths or those who quit the profession of teaching, something more than seven years must elapse before the requisite number could be trained, and the effects of the Normal School be generally felt upon our Common Schools.

The students will be furnished with gratuitous instruction and books, and in some cases, as where a student is unable to pay his own expenses, a dollar a week each will be given toward paying the expenses of board.

The Head Master will deliver practical lectures combined with actual instruction, on all such subjects as school teachers will be required to be conversant with. Among these will be Algebra, Geometry, Drawing, Mechanics, Surveying, Logic, Singing, Political Economy, &c.

We anticipate much good to the agricultural community from the lectures which Mr. Hinds will deliver on Natural Philosophy and Agricultural Chemistry. The principles of vegetation, the constituents of soils, the mode of repairing the waste occasioned by different crops, and all matters connected with the principles of Agricultural science will be treated on. If the rudiments of this know-

ledge, so necessary to every farmer, be acquired by 100 students in the Normal School every year, incalculable benefits will arise from the scientific knowledge that will be thus disseminated—though it may be in isolated portions like globules of quicksilver—over the country to its opposite extremities. Thus will our country keep pace with the advancing intelligence of the age. We cannot overlook the fact that in more than one respect Canada is peculiarly fortunate.—Chemistry, on the principles of Liebig, as applicable to the operations of Agriculture, is a comparatively new science. Its application is, in most countries, as yet extremely limited. It comes to our aid at the precise time when we are ready to receive it. We have, through our Normal School, the means of a "fair start" with other countries, and a proper use of our means, will speedily elevate us to the position of one of the first Agricultural countries in the world.

SETTLEMENT OF UNOCCUPIED WILD LAND.

Under this head we find the following article in a late number of the *Quebec Gazette*. Perhaps no circumstance has a greater effect upon the permanent prosperity of a country than the tenure by which the land is held. Unfortunately much of our wild land has been subjected to a system of jobbing, seriously detrimental to the best interests of the country. But when large portions of the public domain have been permanently disposed of to companies the act is irrevocable, and regret unavailing. It appears that the Feudal system in Lower Canada has, in some instances, had the effect of reducing the industrious settlers to the condition of day labourers. The Seigneurs have, in some cases, subjected the settlers to harsh and illegal oppression. They should be compelled to act justly & adhere to the letter of the law, fulfilling every obligation they owe to the settlers, or the whole system should be subjected to a thorough revision, and be placed upon a basis more favourable to the development of the country's resources. Obligations and rights are inseparably united, and when the first are disregarded, the second are in common justice forfeited:—

Le Canadien of the 22nd instant, contains an interesting letter from the Rev. B. O'Reilly, on the condition of the descendants of the first settlers in Canada, dispersed throughout the townships on the southern side of the St. Lawrence. Mr. O'Reilly is the only Roman Catholic missionary in charge of these people and the Irish Roman Catholics dispersed over a circle of about ninety miles in diameter. He speaks favourably of the condition of the Irish settlers, who are generally occupied in the clearing or cultivating of their lands; but the numerous descendants of the French settlers he represents as being chiefly engaged as servants or labourers to the settlers originally from the United States, without religious instruction and schools for their children in the French language, and exposed to all the degradation and vice which are consequent on such a state of things. Numbers of them it appears also go for employment into the adjacent state, where they are equally exposed. Their numbers are said to be great.

Mr. O'Reilly asked why the Canadians do not settle on and cultivate the abundance of fertile land to be found in their neighbourhood? and why, when they do settle on land in the Townships, they leave them for a great part of the time to work for American settlers?

Mr. O'Reilly recommends an association to promote their settlement in the rear of the present settlements on the banks of the St. Lawrence in the Districts of Quebec and Three Rivers, by uniting them in contiguous settlements and offering every facility and encouragement.

We are afraid that the causes of the unfortunate condition of the descendants of the French colonists, who emigrated to the Townships, he deeper than has been perceived by Mr. O'Reilly. These causes were pointed out by the late lamented Andrew Stuart, while he was a member of the Lower Canada House of Assembly. They were endeavoured to be removed by the Bill for securing to actual settlers on unoccupied lands the original facilities afforded them by the conditions of the grants from the Crown and the acts and ordinances of the Colonial Government. These ensured to every applicant, for

actual settlement, a sufficient extent of unoccupied land, on condition of continued occupation, for a small and fixed annual rent and legally established dues, in no wise burthenome to the settler, and barely a compensation to the grantee of the Crown for his trouble and disbursements, and for superintending and promoting the settlement.—Every farmer's son could have land, on these terms, in his own neighbourhood, without any capital more than was sufficient for his subsistence till his labour could procure him a first crop.

All the burthens and expenses of the local administration, of justice, building and keeping up mills for the settlers at a lower rate for grinding than is taken in any other country, with every inducement to promote the progress of the settlement; in fact to superintend the whole for the common prosperity, were imposed on the grantees of the Crown, who were bound to do for the good of the settlement nearly all that is now attempted to be done, at so much cost and loss of time to the settlers and the Province.

The Seigneur or original grantee of the Crown on the change of Government, after the cession of the Province, was virtually discharged from a great part of his onerous obligations, and was suffered to set at defiance the old laws in favour of the actual settlers, who were left without any legal remedy against the abuses which were introduced.

A new system of land granting was introduced about fifty years ago. Vast quantities of waste land fell into the hands of speculators who "did what they pleased with their own." Some of them left the country without even appointing an agent in the vicinity for the disposal of the land to actual settlers. Others held them in a state of wilderness till they were rendered valuable by the capital and labour of others, and then they took all the ready money of the settlers that they could get, and besides, frequently, subjected them to a debt, the interest of which fell far more heavily on the settler than all the dues that could be legally exacted by the Seigneur, and frequently ended in their being dispossessed of their land after years of labour bestowed for its improvement. Some Seigneurs, and other holders of large seigneur grants from the Crown, soon came to understand that they enjoyed a species of monopoly of the wild lands, the nearest to actual settlements, and began to exact their own terms from the settler, who, as has been stated, had no remedy. Is it wonderful that large families with little capital, prefer becoming servants and day labourers, abandoning every thing that is dear to them, rather than subject themselves to obligations which they may be unable to fulfil and be expelled from their neighbourhood and the earnings of their hard labour, to begin the world anew, under more unavonable circumstances?

Mr. O'Reilly appeals to the "patriotism" of our legislators and others.

No "patriotism" will be sufficient till unoccupied land can legally be had by settlers subject to actual residence, by themselves or others, and till the original conditions and laws regulating the seigneurial grants can be legally enforced.

That the descendants of the original French colonists are disposed to settle on and cultivate the waste lands, the multitude of them settled on such lands as squatters is sufficient evidence; the new and populous parishes they have formed, where they could get lands nearly on the old terms, shows that they are steady and successful settlers.

SKETCHES OF THE COUNTRY.

Woolwich and Nichol—Some good Farms in the "Back Townships"—Fall Wheat—A Small Village—Elora and Fergus—Beautiful Cascade, &c. &c.

St. George, Oct. 23, 1847.

DEAR SIRS.—In my letter of the 4th inst. you had a sketch of Waterloo, its villages, &c. If you are not averse to going further north come a long with me and take a trip through Woolwich and Nichol; let us view the farms, notice the improvements in agriculture and agricultural implements. You know these townships are generally denominated "back townships" but be very careful or you will entertain a wrong idea of them, and, in consequence, will be much surprised when you behold many beautiful farms, orchards, gardens, &c. with good barns and houses, I do not say that you will find the greater part of them answering this description, but I say that many farms in those townships are not inferior to many of the first class of farms in parts of the country which were settled 25 or 30 years sooner. In fact many of them exhibit signs of quite as much good taste, persevering industry, sound judgement, and as thorough knowledge of farming to the best advantage, as any of the farms around Toronto, Hamilton, &c.

The soil is good, very excellent, and produces excellent crops of wheat, oats, barley, peas, beans, turnips, and many others too numerous to mention. Spring Wheat has heretofore been the principal kind grown, but many are now sowing large quantities of Fall Wheat which does well, and pays the farmer well for his trouble and expense in getting it in. Many in the first settled section of the country have an idea that, in these back townships, (for so they are called) the inhabitants are obliged to almost skin a flint in order to get a living, but how are they mistaken! People in these townships live as luxuriously as any people ought to live.

Before visiting Woolwich I looked over Smith's Map of Canada, and observed in this township, a village of the same name. In travelling through this section of the township, when I came near to the spot I pushed on with the expectation of beholding a pleasant little Village. Well, I continued travelling—travelling—without finding the village, and at last I stopped and inquired for it. "You are in it" said the person of whom I made the inquiry—"you are in it now." I looked around and at last saw one house, the Post Office. And this, sirs, is the village of Woolwich. It is true that a about one quarter of a mile to the South, is a chapel, and not very far from that is a tailor's shop, but the idea of calling this place a village would scarcely have entered into the head of Punch himself.

There is a road leading from this place, into Nichol, but it is enough to make one weep to travel it.

Before leaving Woolwich let me tell you that, upon the whole, it is a good township, possessing an excellent soil which is very productive, and almost every kind of grain, such as wheat, oats, barley, rye, peas, &c., and fruits, such as apples, cherries, pears, plums, and currants, can be cultivated to very good advantage.

Nichol is a fine township, well watered, and has a good soil, very similar to that of Woolwich. It contains two beautiful and thriving Villages—Elora, and Fergus, both on the banks of a branch of the Grand River which, at both these places is obliged to work machinery. At Elora is a beautiful cascade formed by a ledge of rocks across the channel. Over these rocks, which do not rise perpendicularly, but gradually about two feet in five, the water rushes with great fury. On each side of the river below the fall, the rocks rise to the height of about 25 feet and present a very bold aspect. Fergus lies 6 or 7 miles north of Elora, and contains some very good buildings, and some machinery. The place is not very large but still there is a great deal of enterprise exhibited. The country around is settled by active, intelligent, and industrious Farmers, who are paying very laudable attention to the improvement of their farms, and many have excellent buildings, an abundance of the necessaries, as well as the luxuries of life and will make you feel at home if ever you travel through that section of the country. Wishing them success and prosperity in all laudable undertakings, and yourselves pleasant dreams about our beautiful and delightful country, its resources, institutions, &c. subscribe myself, Gentlemen,

Yours, &c.
THE FARMER'S SON.

RAILROAD TRAVELLING.—RATES OF FARE.—The following table shows the number of passengers carried on the principal roads of New York and New England in 1846, with rates of fare, &c. It will be seen that the rates on the line between this city and Albany are higher than those of any other road. It will also be seen that the cheaper the fares, the greater the travel, which would indicate to our road the policy of reducing their present high charges. And when it is remembered that the packets between this city and Rochester which have twice a day, are crowded to their utmost capacity—carrying as we see often announced, 200 passengers—a reduction of fare would seem to be a measure about the wisdom of which there could be no question:—

Name of Road	Length of Road in miles	Number of passengers carried	Rate of fare per mile
Boston and Lowell	96	400,596	3 1/2 cts.
Boston and Maine	73	460,426	2 1/2 cts.
Bost & Providence	42	476,515	2
Bost & Worcester	45	390,316	2 8-10
Eastern	51	796,756	2 8-10
Fitchburg	49	327,034	2 1/2
Old Colony	37	213,114	2 7-10
Western	156	265,664	2 4-10
Long Island	98	167,471	2
Eric	62	103,283	2
Albany & Schen'y	17	174,653	3
Utica & Schen'y	78	221,818	4
Syracuse & Utica	53	135,279	3
Auburn & Syracuse	26	105,899	4
Aub'n & Rochester	78	142,355	4
Tonawanda	43 1/2	92,387	4
Attica & Buffalo	31	87,643	4
Harlem	52	1,508,466	2

Mr. Van Norman, Proprietor of the Iron Works at Long Point, on Lake Erie, has purchased the Marmora Iron Works, in the Victoria District.

SONG FOR THE SEASON.

BY ELIZA COOK.

Look out, look out, there are shadows about!
The forest is denning its doublet of brown,
The willow tree sways a with a glimmering flout,
Like a beautiful face with a gathering frown!
'Tis true we all know that Summer must go,
That the swallow will never stay long in our eaves;
Yet we'd rather be watching the wild rose blow,
Than be counting the colors of Autumn leaves!

Look high, look high, there's the lace-winged fly,
Thinking he's king of a fairy realm,
As he swings with delight on the gossamer tie,
That is lured and the loughs of the sun tipped elm!
Alas! poor thing, the first gust will bring
The pillar to dust, where your pleasure-clue weaves,
And may a spirit, like thine, will cling
To hopes that depend upon Autumn leaves!

Look low, look low, the night-gusts blow,
And the restless forms in lecture reel
Come whirling and sporting wherever we go,
Lighter in dancing, as never the dead!
Oh! who has not seen rare hearts that have been
Painted and painted, in garb that deceives,
Dashing gaily along in the fluttering shawl,
With despair at the core, like the Autumn leaves!

Look on, look on, morn breaketh upon,
The hedge-row loughs, in their withering hue;
The distant orchard is yellow and wan,
But the apple and nut gleam richly through.
Oh! well it will be if our life, like thine,
Shall be found, when old time of green beauty bereaves,
With the spirit of good works for the Planter to see,
Shining out in Truth's harvest, through Autumn leaves.

Merrily pours, as it sings and soars,
The West wind over the land and sea,
Till it plays in the forest and moor and roars,
Seeming no longer a mournful breeze!
So Music is best, till it meeteth a breast
That is probed by the storm while memory grieves
To think it was sung by a loved one at rest,
Then it dies like the sweet wind in Autumn leaves!

Not in an hour are leaf and flower
Stricken in freshness, and swept to decay;
By gentle approaches, the frost and the shower,
Make ready the eye veins for falling away!
And so in Man in life as peacefully fade,
By the tear that he sheds, and the sigh that he heaves,
For he's bowed from earth by each trial and shade,
Till he's willing to go, as the Autumn leaves!

Look back, look back, and you'll find the track,
Of human hearts, strown thickly o'er
With joy and dead leaves, all dry and black,
And every year still flung more
But the soil is fed, where the branches are shed
For the furrow to bring forth fuller sheaves,
And sois our trust in the future spread
In the gloom of Mortality's Autumn leaves!
Great Moleen.

Literary Department.

From the Charleston Courier

THE BEAUTIFUL MANIAC.

"The fire that in my bosom preys
Is like to some volcanic isle,
No torch is kindled at its blaze—
A funeral pile."

In the morning train from Petersburg, there was a lady closely veiled, in the same car with ourselves. She was dressed in the purest white, wore gold bracelets, and evidently belonged to the highest circles of society. Her figure was delicate, though well developed, and exquisitely symmetrical; and when she occasionally drew aside her richly embroidered veil, the glimpse of her features, which the beholder obtained, satisfied him of her extreme loveliness. Beside her sat a gentleman in deep mourning, who watched over her with unusual solicitude, and several times when she attempted to rise, he excited the curiosity of the passengers by detaining her in her seat.

Outside the cars all was confusion; passengers looking to their baggage, porters running, cabmen cursing, and all the usual hurry and bustle attending the departure of a railroad train. One shrill whistle from the engine, and we moved slowly away.

At the first motion of the car, the lady in white started to her feet with one heart-piercing scream, and her bonnet falling off, disclosed the most lovely features we ever contemplated. Her raven tresses fell over her shoulders in graceful disorder, and clasping her hands in prayer, she turned her dark eyes to heaven! What agony was in that look! What beauty, too, what heavenly beauty, had not so much of misery been stamped upon it. Alas! that one glance told a melancholy tale.

"—she was changed
As by the sickness of the soul, her mind
Had wand'ring from its own home, and her eyes
They had not their own lustre, but her look
Which is not of the earth; she was become
The queen of a fantastic realm, her thoughts
Were combinations of disjointed things
And forms, unimpaled and unperceived
Of other's sight, familiar were to hers."

Her brother, the gentleman in black, was unremitting in his efforts to soothe her spirit. He led her back to her seat; but her hair was still unbound, and her beauty unveiled. The cars rattled on, and the passengers in groups resumed their conversation. Suddenly a wild melody arose; 't was the beautiful maniac's voice, rich, full, and inimitable. Her hands were crossed on her heaving bosom, and she waved her body as she sang with touching pathos,

"She is far from the land where her young hero sleeps,
And lovers are roused by sighing,
But coldly she turns from their gaze, and weeps,
For her heart in his grave is lying!

"She sings the wild songs of her dear native plains,
Every note which he loved awaking—
Ah! little they think, who delight in her strains,
How the heart of the minstrel is breaking.

Her brother was unmoved, and he wept as only man can weep. The air changed, and she continued—

"Has sorrow thy young days shaded
As clouds over the morning fleet?
Too fast have those young days faded,
That even in sorrow were sweet!
If thus the unkind world wither
Each feeling that once was dear,
Come child of misfortune! come hither,
I'll weep with thee, wear for tear!"

She then sung a fragment of the beautiful hymn:

"Jesus, lover of my soul,
Let me to thy bosom fly,"

Another attempt to rise up was prevented, and she threw herself on her knees beside her brother, and gave him such a mournful, entreating look, with a plaintive "save me, my brother, save your sister!" that scarcely a passenger could refrain from weeping. We say scarcely, for there was one man (was he a man?) who called upon the conductor to "put her out of the car." He received the open scorn of the company. His insensibility to such a scene of distress almost defies belief; and this is, in every particular, an "ow'er true tale." Should he ever read these lines, may his marble heart be softened by the recollection of his brutality!

Again the poor-blighted beauty raised her bewitching voice to one of the most solemn sacred airs:

"Oh where shall rest be found
Rest for the weary soul!"

And continued her melancholy chant until we reached the steamer Mount Vernon, on board of which we descended the magnificent James river, the unhappy brother and sister occupying the "ladies cabin." His was a sorrow too profound for ordinary consolation, and no one dare intrude so far upon his grief as to satisfy his curiosity.

We were standing on the promenade deck, admiring the beautiful scenery of the river, when at one of the landings, the small boat pulled away to the shore with the unhappy pair, en route for the Asylum at ——. She was standing erect in the stern of the boat, her head still uncovered, and her white dress and raven tresses fluttering in the breeze. The boat returned, and the steamer moved on for Norfolk. They were gone! that brother with his broken heart, that sister with her melancholy union of beauty and madness.

* Me lip so teste.

INDIAN SUMMER.

A paper read before the National Institute, by Professor Jacobs, of Pennsylvania College, says the Baltimore American, treats of those atmospheric phenomena so characteristic of our autumnal skies, during the continuance of what is called the Indian Summer. The learned essayist says that this autumnal season is only one of a class of similar phenomena occurring at various times during the year. He designates these several seasons as follows, giving it as his opinion that they occur when either the temperature or the pressure of the atmosphere, or both together, have attained their highest degree or their lowest, and are about to pass to the opposite extreme:—

Seasons of comparative rest in the atmosphere are of frequent occurrence, and the sky is scarcely ever free from matter, whatever that may be which destroys its transparency.

Four periods occur, however, during the year, with considerable regularity, at which are to be witnessed the grand distinguishing characteristics just named.

The first occurs with but little variation as to time, at about the close of October, or beginning of November. It is scarcely ever as late as the 12th or 13th of the latter named month. This is the period of the "Indian Summer," properly so called. In its duration it is not perfectly uniform. Sometimes it lasts two or three weeks, and at others only a few days. During the autumn of '43 it continued only for five days, viz: from the 28th of October to the 2nd of November, and was then so faintly marked, as to have led many persons to suppose that for that year there was no Indian Summer, and was, therefore, scarcely distinguishable from the rest of the season.

The second occurs about the middle or close of April. Though not in general so well characterized as the period just named, it is sometimes so distinctly marked as to attract the attention of even the casual observer. A remarkable instance of this kind occurred during the spring of 1833. From the 17th or 18th of April to 9th of May, a period of three weeks, the atmosphere was subject to but little disturbance; the winds were gentle; but few clouds were to be seen; no rain fell to water the earth, and the sky was darkened by what had the appearance of smoke, which was afterwards enforced by real smoke, arising from extensive fires then prevailing in our mountain forests. But during every year, perhaps without exception, this peculiar state of weather may be noticed at this period, sometimes more, and at others less distinctly.

The third period occurs from about the middle of January to the first week in February, and continues from five or six days to

three weeks. During this season it not unfrequently happens that the farmers in Pennsylvania and Maryland plough the grounds designed for the reception of their spring crop. Among the more remarkable examples of this kind might be named the winters of 1817 and 1818, and those of 1842 1843. Every year, however, as might be expected, is not alike in this respect, just as is the case with the "Indian Summer."

A fourth period of similar atmospheric condition exists during the month of August. The atmosphere has then sunk into a state of almost perfect repose. The breezes from the south and from the southwest, which had almost daily, during the months of June and July, refreshed us, and thus rendered the heat less oppressive, have died away. The stagnant and sultry air has its transparency destroyed by thin haze or smoke, through which distant objects appear of a whitish blue color. Thunder clouds have diminished in frequency and extent, and hence, except during extraordinary seasons, the month of August is deficient in rain. The widely extended cloud does, indeed, come with its refreshing and cheering showers, but these it distils rather gently and quietly. And, after it has passed away, it leaves a dusky atmosphere. It is about the middle of the month when this state of weather mostly occurs.

Agreeably to these views, there are, therefore, four grand periods at which a smoky or hazy atmosphere pre-eminently prevails, viz: two of greater intensity, occurring about a month or six weeks after the autumnal and vernal equinoxes, and two of less intensity, or less distinctly marked, occurring at about the same length of time after the summer and winter solstices. The autumnal is of the greatest intensity, particularly so, as the immense volumes of actual smoke, which are thrown into the air from ten thousand fires kindled by Indians and hunters among the western forests, strewed with the recently fallen foliage, add their sombre hue to the already existing vapor smoke. The Indian summer is, therefore, only one of the four periods, and subject, like the rest, to vary exceedingly in character and duration, during different years.

VULCANIZED CAOUTCHOUC—GUTTA PERCHA.

A late issue of Chambers' Journal, in noticing the material CAOUTCHOUC—its wonderful cohesive force, power of resisting impression, its impermeable elasticity, and accommodation to a host of the wants of mankind, passes to the consideration of a newly invented mode of hardening the substance, termed vulcanizing. As the caoutchouc is said to be greatly improved by undergoing this process, the matter is of general interest.

Mr. Brokeodon who is well known in Great Britain as connected with this subject, ascribes the merit of the discovery to a Mr. Hancock of England.

The caoutchouc to be vulcanized is immersed in a bath of fused sulphur heated to a proper temperature, until, by absorbing a portion of the sulphur, it assumes a carbonized or burnt appearance, and eventually acquires the consistency of horn. The same condition can, however, be produced by kneading the India-rubber with sulphur and then exposing it to a temperature of 190° Fahrenheit, or by dissolving it in any of the common solvents, as turpentine, holding sulphur in solution or suspension. The rationale of these operations appears to be that the India-rubber forms an actual chemical compound with the sulphur; becomes, in short, a sulphuretted caoutchouc, the properties of which are thus enumerated: The new compound remains elastic and rigid at a few degrees above the freezing point of water; vulcanized caoutchouc is not affected by the ordinary solvents, nor by heat within a considerable range of temperature. Finally, it acquires extraordinary powers of resisting compression, with a great increase of strength and elasticity. Some interesting experiments have been made upon this compound. Mr. Fuller has invented a form of spring in which vulcanized caoutchouc takes the place of steel, and the surprising result is that the India-rubber springs are more than three times the strength of the metallic; that is, they will resist, at the height of their tension, a pressure equal to from five to ten tons. A more forcible evidence of the strength of this material was obtained by firing a cannon ball at a mass of vulcanized caoutchouc, and it was found literally broken to pieces, while there was scarcely a perceptible rent in the caoutchouc itself.

Gifted with these new powers, vulcanized caoutchouc has already been called into extensive employment for the most various and opposite purposes. It forms an admirable spring, more docile and more equal in power than those of steel; it has for this purpose been applied to locks and window blinds. It may be mentioned parenthetically that by proportioning the ingredients the material may be rendered harder or softer at will. It is manufactured into most elaborate ornaments, being superior to leather in the sharp outline and bold relief of their detail. It is formed into a tubing of great strength and flexibility, well adapted for fire-hose and for any apparatus required in conveying steam, water or gas—although for these purposes it is, perhaps, somewhat costly.—The tubing has been, by way of experiment, wrapped together, twisted, and knotted into every conceivable shape, but instantly resumes its contour as soon as liberated from its restraint. The tube promises to become invaluable in the construction of life-boats, superseding those made of

canvas, which were slowly destroyed by the influence of the sea water. Its most important application is in its use in railways, and in railway carriages. It is laid between the rail and the sleeper, and thus prevents the rails from indicating any traces of pressure. Beside all these appliances, it is proposed to apply it as a coating to protect the wires of the submarine telegraph from the influence of the sea water; it forms impervious bottles for ether; inkstands, pantaloons, straps, boots, surgical bandages, and a number of articles, for which its nature seems to have been expressly designed.

From this, there is a natural reversion to the very similar substance termed GUTTA PERCHA. This is of recent introduction into England, having been first brought under the notice of the Society of Arts in the autumn of 1843. The history of its discovery is given at great length by Doctor Montgomerie. This gentleman first observed it manufactured at Singapore, in the hands of a Malayan woodman, and from investigations forthwith instituted, Dr. M. became convinced that if attainable in large quantities, it would become extensively useful, and establish another specific trade of commerce.

The tree from which it is procured belongs to the natural order Sapotaceæ—it is found in abundance in many places of the island of Singapore and some dense forest at the extremity of the peninsula, and is plentiful in Borneo. The tree is called Ninto by the natives; it attains a considerable size, even as large as six feet in diameter—one of the largest in the forests where it is found. It is valueless for building purposes, on account of the loose and open character of its tissue; but bears a fruit which yields concrete oil, used for food by the natives. 'Gutta Percha,' however, is contained in the sap, and is thus procured:

A magnificent tree of 50 or perhaps 100 years' growth is felled; the bark is stripped off, and a milky juice, which exudes from the lacerated surfaces, is collected into a trough formed by the hollow stem of the plantain-leaf. On exposure to the air the juice quickly coagulates. From 20 to 30 pounds is the average produce of one tree. However, this is needless, shameful waste—incisions in the bark, without destroying the tree, would answer every purpose, and prevent the present apparent probability of a speedy and entire failure of the article, resulting from such extravagance.

Gutta percha below the temperature of 50°, is as hard as wood, but it will receive an indentation from the finger-nail. It is excessively tough, and only flexible in the condition of thin slips; in the mass, it has a good deal of the appearance and somewhat of the feel of horn; its texture is somewhat fibrous—in colour varying from a whitish yellow to a pink. It is in a great measure devoid of elasticity, offering a striking contrast to caoutchouc, but its tenacity is little less than wonderful; a thin slip, a eighth of an inch in substance, sustained a weight of 42 pounds, and only broke with a pressure of 56 pounds. It offers great resistance to an extending power; but when drawn out it remains without contracting in the same position. When in its hard state, it is cut with incredible difficulty by the knife or the saw. Like caoutchouc, it burns brightly when lighted, disengaging the peculiar odour accompanying the combustion of that substance; like it, also, it is soluble with difficulty in ether and some few other substances, and very readily in oil of turpentine.

We may now properly consider the applications of this substance. The solution appears to be as well adapted as that of India-rubber, for the manufacture of water-proof cloth, and for other purposes to which that liquid is now applied. In the solid state it is used by the Malays as far preferable to wood, principally as handles to weapons and utensils of various kinds. Its value has been readily recognized by our inventors, no less than six patents being in existence bearing reference to this material. Among tedious enumerations of its various uses, there is mentioned a process of so hardening it that in that state it offers itself for a thousand offices: as excellent picture-frames, incredibly tough walking-sticks [these last are profitably manufactured of this material in China], door-handles, chess-men, sword and knife-handles, buttons, combs, and flutes. It has been suggested that it would make a good, certainly a harmless stopping for decayed teeth. It has also been proposed as a material for forming the embossed alphabets and maps for the blind, on account of the clear and sharp impression it is capable of retaining. It is an excellent matrix for receiving the impression of medals and coins, and is valuable on account of its subsequent non-habitual to break. By mixing a proper portion of sulphuric acid with it, or adding a portion of wax or tallow, it may be reduced to any degree of solubility, and furnishes a good varnish, quite impermeable to water. It is probable that an extensive application of the discovery will be, the use of fluid for amalgamating colours in printing; it is thought that colours so printed will prove as lasting as the fabrics on which they are impressed.

Time alone, however, can determine the extent to which Gutta percha will be applied in the useful and ornamented arts. There appears no doubt that it will soon become an article of commerce as important, if not more so, than caoutchouc itself; and there is a general belief that its persevering discoverer will have many occasions, and we hope for many years, to rejoice over the benefits he has been the means of conferring upon the present age by its introduction.

IRON MOUNTAIN OF TEXAS.—We have been informed by a respectable gentleman who resides in Fredericksburg, that the surveyors who have been engaged in running the boundary line of the German colony have discovered a mountain near the Concho river that consists entirely of iron ore. A portion of this iron has been smelted and yielded 70 per cent of pure iron. According to the representation of those who have visited this mountain, it resembles the celebrated iron moun-

tain of Missouri. It is not so large as the mountain in Missouri, being only four or five hundred feet high and probably half a mile in circumference. We are informed, however, that a range of hills extending several miles north of it, that appears to be composed almost entirely of iron ore. Within a tract of country fifty miles long by twenty broad, extending from the east bank of the Colorado northward toward the Brazos, there is probably sufficient iron to supply all the foundries in the world for the next century. Owing however, to the scarcity of fuel, this ore, except in the immediate vicinity of the Colorado and its tributaries will probably remain for many years, perhaps for centuries, as valueless as the sand hills of the desert.

Our Table.

GARDENER'S AND FARMER'S JOURNAL.—We have received from the publisher in London, three numbers of this valuable Agricultural Journal. It is a first class English periodical, conducted somewhat on the plan of the Gardener's Chronicle. In shape it resembles the Canada Farmer, being about an inch less in width and two inches shorter than our journal. The annual price is six dollars and a half; and even at this price it contains no wood cuts. Each number has 20 pages of reading matter, being about three times the amount given in this journal. It is impossible to compare the price of English with Canadian journals, without seeing the striking difference, and feeling the disadvantages under which the proprietors of Colonial journals are placed by the almost nominal price to which every thing in the shape of newspapers is reduced amongst us.

The Gardener and Farmer's Journal is a very valuable publication, which we are happy to have placed on our exchange list.

ANATOMICAL FIGURES.—The idea of studying the structure of the human frame, without the difficulty and disgust of anatomical demonstration, is one which has often been desired, but never till now fully realized. Signor Sarti has had the honour of first conferring upon the people of this country such an invaluable boon. His last visit to this city, with his anatomical Venus and Adonis, will be still fresh in the recollection of our readers. In consequence of the favourable reception which met these first, but meritorious, attempts to impart to the public mind the essential knowledge of physiology, he has got prepared another and even more complete figure of the human frame, in the shape of a beautiful Moorish Venus. Externally, this singular piece of art indicates all the grace and elegance of a lovely female form—her general appearance bespeaking all the intelligence of conscious living innocence. The demonstrator, however, soon changes this more agreeable part of the scene, and proceeds to an easy and intelligible dissection of all the individual parts, at the same time elucidating such explanations and observations as the nature of each peculiar section requires. The mechanism of the head, heart, stomach, lungs, and nervous systems are peculiarly interesting, and the consequent knowledge derived from their various workings and uses, is exceedingly instructive, and such as could not be communicated by any written analysis. By this means the knowledge of the physiology of the human system is detailed in the plainest and most common sense manner; and thus the important laws which regulate our every day existence are brought home to the mind with an impressive eloquence which is ever afterwards felt and remembered. No feeling of indecency need be apprehended, even by the scrupulous in these respects, in viewing either the Venus, or another female form, which more especially delineates those more malignant diseases to which humanity is subjected. At first sight all such impressions vanish, and give place to the more delectable feelings of wonder, admiration and awe. A misapprehension has been abroad that the Moorish Venus is the same as the white Venus, but colored. This, we understand is a mistake, as the latter figure is still exhibited in different parts of the kingdom.—[North British Mail.

REFUGE FOR FEMALE CRIMINALS.—We are informed by the Literary Gazette, that Miss Counts has determined to prepare a domicile at Shepherd's Bush, under judicious and merciful regulations, capable of maintaining a considerable number of discharged female prisoners, who have been condemned for offences, punished, and then thrown upon the world characterless, tainted, abandoned, and helpless. To these the gates of reformation will be opened. They will be instructed in the consoling and upholding value of morals and religion. They will be taught the means of industry, whereby they can earn their bread. They will be rescued from the necessity of guilt; and if not doomed to ruin by evil dispositions, which cannot be changed, they will be restored, repentant and virtuous members, to society, instead of being outcasts and curses, to that and themselves." Mr. Chesterton, the experienced and worthy governor of Coldbath-fields, is, we are told, superintending the preparations of the Refuge.

THE TELESCOPE AND MICROSCOPE.—While the telescope enables us to see a system in every star, the microscope unfolds to us a world in every atom. The one instructs us that this mighty globe, with the whole burthen of its people and its countries is but a grain of sand in the vast field of immensity—the other, that every atom may harbour the tribes and families of a busy population. The one shows us the insignificance of the world we inhabit—the other redeems it from all its insignificance, for it tells us that in the leaves of every forest, in the flowers of every garden, in

the waters of every rivulet, there are worlds teeming with life, and numberless as the stars of the firmament. The one suggests to us that above all and beyond all that is visible to man, there may be regions of creation which sweep immeasurably along, and carry the impress of the Almighty hand to the remotest scenes of the universe—the other, that within and beneath all that minuteness which the aided eye of man is able to explore, there may be a world of invisible beings, and that, could he draw aside the mysterious veil which shrouds it from our senses, we might behold a theatre of as many wonders as astronomy can unfold—a universe within the compass of a point, so small, as to elude all the powers of the microscope, but where the Almighty Ruler of all things finds room for the exercise of his attributes, where he can raise another mechanism of worlds, and fill and animate them all with the evidences of his glory.

Scientific.

TO PREVENT WOOD DRAINING.—Take twelve ounces of resin and eight ounces of roll brimstone, each coarsely powdered, and three gallons of train oil. Heat them slowly, gradually adding four ounces of beeswax, cut in small bits. Frequently stir the liquor, which, as soon as the solid ingredients are dissolved, will be fit for use. What remains unused will become solid on cooling, and may be re-melted on subsequent occasions. When it is fit for use, add as much Spanish brown, or red, or yellow ochre, or any colour you want first ground fine in some of the oil as will give the shade you want; then lay it on with a brush, as hot and as thick as you can; some days after the first coat is dried, give it a second. It will preserve plank for ages, and keep the weather from driving through brick-work. Common white paint may be used on top of it, if required, for the sake of appearance. Two coats should always be given, and in compound machinery, the separate parts should be varnished before they are put together, after which it will be prudent to give a third coating to the joints, or to any other part which is peculiarly exposed to the action of moisture, such as water-shoots, flood-gates, the beds of canals, the tops of posts, and all the timber which is near or within the ground. Each coat should dry before the parts are joined or the last coat applied. The composition should be applied when the wood is perfectly dry. It is necessary to mention that compositions made of hot oil should for the sake of security be heated in metallic vessels, in the open air for when the oil is brought to the boiling point, or six hundred of Fahrenheit the vapor catches fire and though a lower degree of temperature should be used in this process, it is not always possible to regulate the heat or to prevent the overflowing of the materials; in either of which cases, were the melting performed in a house, fatal accidents might happen.—[Archives of useful knowledge.

HOW TO WHITEN LIXEN.—Fruit stains, iron mould, and other spots on linen may be removed by applying to the part, previously washed clean, a weak solution of chloride of lime or of soda, oxalic acid, or salts of lemon, in warm water, and often it may be done by merely using a little lemon-juice. The part which contained the stain or spot, should shortly after be thoroughly rinsed in clear warm water (without soap), and immediately dried in the sun.

Linen that has acquired a yellow or dingy colour by careless washing, may be restored to its former whiteness by working it well in water to which some strained solution of chloride of lime or of soda has been added, observing to well rinse it in clean water, both before and after the immersion in the bleaching liquor. Never attempt to bleach uncasted linen, and avoid using the liquor too strong, for in that case the fabric will be rendered rotten.—[Am. Ag.

INTERESTING FACT.—The slow transmission of heat through loosely coherent clay and sand, was tested recently in England, by an experiment in which a thickness of half an inch of such matter intercepted the heat of a mass of 11 tons of white hot melted cast iron for 20 minutes, without the heat outside of the vessel being sufficient to pain the hand.

AMERICAN IRON.—The Philadelphia North American says that there will be sixty thousand tons of railroad iron manufactured in this country during this present year, which will be equal in quality to any imported iron. The value of this quantity, at the present selling prices, will be upward of four millions of dollars.

A NEW AND IMPORTANT INVENTION, which does away with the present system of rope making, has just been made by Mr. Wipple, of Providence, R. I. By this process, rope can be made in the piece of a mile long, or to an indefinite length—in a square room—thus doing away with the necessity of long rope walks. Two twists are made at one revolution, without twisting or turning at the end of the rope, as is now the custom. The strands formed, and the rope laid in a more perfect manner, and at far greater speed than is now attained. From 150 feet to 200 feet of two inch rope can be thus made in a minute; smaller size much faster. One man could attend a number of these machines at once. If this invention is carried on, a process will soon be in use, not only doing away with foreign importations and controlling our own market, but exporting to other countries. Two-thirds of all the cordage made in this country is from dew-rotted American hemp, at an average of 5 cents, though the present rate is 7 cents.

STONE ROPE.—A rope, nearly three miles long, now lies at Gateshead, England, which was the other day a stone in the bowels of the earth! Sucked the stone yielded iron. The iron was converted into wire. The wire was brought to the wire-rope manufactory, near Gateshead, and there twisted into a line of 4000 yards long. It is the stoutest rope of the kind ever made. It

weighs 20 tons 5 cwt., and will cost the purchasers \$5508. It is intended for the incline on the Edinburgh and Glasgow Railway near the latter city. A rope of hemp of equal strength would weigh 33½ tons, and cost \$1400 more.

MACHINE FOR MAKING FACE BRICK.—Mr. A. Woodward, of Worcester, has invented a machine for making face brick, which receives the clay in two open tunnels at the top (the clay being just moist enough in its natural state for adhesion), pulverizes it, presses it under plates, forms it into moulds, each motion of the machinery making four bricks, and turns out at the rate of thirty thousand in ten hours.—[Scientific Mechanic.

AN IMPORTANT DISCOVERY.—If the machine referred to below perform all the functions attributed to them, they will be of immense value. We copy from the N. Y. Express:—

Among the prominent articles at the Fair, is the New Process of Preserving Bread Stuffs and other substance, without change of colour, or quality of flour. There are two separate machines, one peculiarly adapted for expelling the moisture from flour, meal, and milk; the other operating similarly upon grain. They are both heated by steam, and the condensed steam is returned to the boiler. The great merit of these inventions lies in their simplicity and cheapness; that they must prove effective, no one can doubt who examines them. They require no attention except to keep up the steam to a given pressure. Ventilation disengaged by the heat, which is the great essential, appears to be perfect. The inventor, Mr. Stafford, is a gentleman of our acquaintance, and he is perfectly familiar with the subject, and takes pleasure in informing all who, from curiosity, or otherwise, examine his operating models.

NEW BRICK MAKING MACHINE.—A late English paper thus describes a machine for the manufacture of bricks, which has been lately patented by a Liverpool firm.

The clay, without any previous preparation, is put into the machine, where, by the action of two sets of cutters, it is prepared and carried forward by the aid of buckets or elevators, and deposited into a hopper. It then descends upon a revolving table set with dies, into which it falls, and after being closely pressed is driven by a slight movement of the machinery to the surface of the table again, from which it is taken by the carriers. The bricks are then ready without any further process for the kiln, saving all the time necessary in the ordinary mode of preparation in the pit and drying on the ground. Shrinking is thus considerably lessened, and the article, it is said, is of more perfect shape, and much superior to those completed in the ordinary manner. It is calculated that the machine, which completes two at a time, will turn out at an average thirty per minute. The inventor is an enterprising mechanic. It is stated that a railway contractor, who has immediately to manufacture 2,000,000 bricks for a railway in construction, has purchased the machine.

(For the Canada Farmer.)

TO MY LITTLE SON.

Welcome helpless little stranger,
To this busy world of ours,
We'll try to shelter thee from danger,
And direct thine infant powers.

What shall we call thee, little son?
How chose I'mong all the names?
I'll think—I now have fix'd on one,
'Tis that of brother James.

That name is now a part of thee,
And it will leave thee never,
What e'er may be thy destiny
Thou wilt be James forever.

Poor helpless little traveller,
Thy journey's just begun,
'Tis Time, the great untraveller
Must tell us when it's done.

Should Providence permit thee grow
To man's mature estate,
How many changes sure tho' slow,
Will on thy progress wait.

The swaddling bands, and teething rings,
'Mid smiles and cries have vanished;
Short frocks and rattles are again
By tops and trowsers banished.

Meantime thou'at learn'd to sit and stand,
To see, to hear, to walk,
To use each active little hand,
And also how to talk.

Then schools and scuffles, books and balls
And marbles in the ring,
With running, leaping—and the rod,
May sometimes cause a sting.

And much thou'lt wish that time would pass,
And think each year so long,
Till thou hast climb'd from boy-hood up
To man-hood, big and strong.

No more I'll say, but trust that grace
May hand in hand with nature,
Direct thy course, that thou may'at grow
In wisdom as in stature.

That we, if spared, may guide thee on,
As saith the Sacred Word,
In wisdom's way, thine nurture and
Memento of the Lord.

W. A. S.

LINKS OF ADVICE.—Never speak of natural defects in the company of the deformed. Utter no word that would wound the feelings of those who are humble in circumstances. When attacked by vulgar and brutal language, be as mild as possible in your replies. Laugh not at those who make an awkward appearance, remembering that you would have been without the polish of society.

For the Ladies.

OUR GIRLS.
Our girls they are pretty,
And gentle and witty,
As any the world ever knew—
Talk of about Spanish,
Or of the health their summer skies blue,
But give me our lassies,
All fresh as the grass is,
With sprinkled with roses and dew.

Each lip is like a blossom,
Each fair swelling bosom
As white as the high drifted snow—
With eyes softly flashing,
Like spring bubbles dashing,
O'er hills, rocks, to valleys below;
All smiling with beauty,
All doing their duty,
What shall we for lover be go?

O, ours are the fairest,
The sweetest, the truest,
The purest and finest I see—
Their hearts are the truest,
Their eyes are the bluest,
Their spirits so noble and free—
O, give me no other
True love, sister, mother,
Our own are the chosen for me.

THE INFLUENCE OF FASHION.—Never yet was a woman really improved in attraction by mingling with the wailing throng of the beau monde. She may learn to dress better to step more gracefully; her head may assume a more elegant turn, her air more distinguished; but in the point of attraction she acquires nothing. Her simplicity of mind departs—her generous confiding impulses of character are lost—she is no longer inclined to interpret favourably of men and things—she listens without believing—sees without admiring—has sufficed herself to learn without learning mercy—and been taught to mistrust the candour of others by the tortuosity of her own. The freshness of her disposition has vanished with the freshness of her complexion; hard lines are perceptible in her very soul, and crows' feet attract her fancy. No longer pure and fair as the statue of alabaster, her beauty, like that of some painted waven eddige, tawdry and meretricious. It is not alone the rouge upon her cheek and the false tresses adorning the forehead, which repel the ardour of admiration; it is the artificiality of mind with which such efforts are connected, that breaks the spell of beauty.

LOVE OF MARRIED LIFE.—The affection that links together man and wife is a far holier and more enduring passion than young love. It may want its imaginative character—but it is far richer in holy attributes. Talk not to us of the absence of love in wedded life. What, because a man has ceased to "sigh like a furnace," are we to believe that the fire is extinct? It burns with a steady and brilliant flame, shedding a benign influence upon existence a million times more precious and delightful than the cold dreams of philosophy.

Refreshing to the soul, jaded and fretful from the sight of men, to slake its thirst for peace and beauty, at the fountain of memory, when childhood seemed to have played with angels. What a luxury of the heart, to cast off the present like a foul, begrimed garment, and let the soul walk awhile in the naked innocence of the past! Here is the scene of a happy childhood. It is full of gracious shapes—a resurrection of the gentle—beautiful. We have lam in that field, and thought the lark—a trembling, fluttering speck of song above us—must be very near to God. Such may be the memories of a happy youth.—[Douglas Jerrold.

MODESTY.—Nothing is more amiable than true modesty, and nothing more contemptible than that which is false: the one guards virtue, the other betrays it. True modesty is ashamed to do anything that is repugnant to right reason; false modesty is ashamed to do anything that is opposite to the honour of those with whom the party converses. True modesty avoids every thing that is criminal—false modesty every thing that is unbecoming; the latter is only a general undetermined instinct—the former is that instinct circumscribed and limited by the rules of prudence and religion.

PILLAR ROSES.—A correspondent of the Scientific American practices the following mode of having pillar roses. Two inch augur holes are bored through pieces of scantling, 3 by 4 inches, and 12 feet long, one foot apart. They are then set in the ground as posts, three feet deep—Near them tall growing roses are planted, two of different kinds, on each side of the post; and as they grow, the stems are run through the holes. In this way they will rise nine feet high. No winds can blow the stems off, and no tying is necessary. Branches intertwined, bearing roses of contrasted colours, make a fine appearance. The Bourbons, Hybrid, China, and some of the prairie rose, furnish fine roses for these blooming pillars.

Scraps.

A NEW CUSTOM.—An exchange paper suggests that the custom should be introduced of publishing notices of births as well as the deaths of people: that little babies have as good right to be honoured with a notice in the papers when they come into the world, as old codgers have when they step out.

"JESSY KISSED ME."—In the notice of Leigh Hunt's "Men, Women, and Books," is the following exquisite rondeau, which has, says the reviewer, beside its own excellence, the additional interest of being the offspring of a real impetus and chronicling the loving audacity of one of the most charming of women:

"Jessy kissed me when we met,
Jumping from the chair she sat in;
Time, you thief! who love to get
Sweet into your list, put that in.
Say I'm weary, say I'm sad,
Say that health and wealth have run
Say I'm growing old, but add
Jessy!"

An Irish servant girl applied to a druggist, a few days since, for six cents' worth of the "glory of rhyme." She had been sent for chloride of lime.

"NEVER SAY DIE."—A soldier was sworn into the service of the United States, at Cincinnati, last week, who was in the battles of Palo Alto, Monterey, and Buena Vista, and in the last one fell, and was left for dead upon the field, reported as dead to headquarters, and published as dead in the official dispatches.

CONVERSATION ABOUT "THE WIRES."—"Sure," said an Irishman, last Sunday, "I've seen them wires every day, and I never saw anything pass along them yet." "That," said his companion, "is because it's a stroke of lightning that does it."

A GOOD FASHION.—The Fashion for men to have their hair cut short on all parts of the head, prevails at present in Paris. We are glad to hear it for we have never yet found either good sense or honesty under a heavy mass of long hair.

News Department.

From the Banner.

ARRIVAL OF THE FRENCH STEAMER PHILADELPHIA.

Still Further Decline in the Markets.—Disturbance in Switzerland, Italy and Spain.—Battle between the Forces of Abdel Kader and those of the Emperor of Morocco.

ITEMS OF NEWS.

The French steamship Philadelphia, from Havre, whence she sailed on the 10th ult., put into Halifax for a supply of coal.

The American steamship Washington arrived out on the 8th ult.

The French steamship New York, which sailed from New York on the 15th Sept., arrived at Cherbourg on the 4th of October.

Flour and corn are lower in all the markets of France. The news received in Paris on the 5th ult. from London, caused a fall in French funds.

The Railroad shares are all declining. The Marseilles papers announce, via Gibraltar, news from Africa to the 22nd September. Abdel Kader had fought a good battle with the troops of Morocco, under the walls of Tagonat, in which the Emir lost 4,000 men. Another pretends that this battle refers to the destruction of the four tribes of Hatheris and Cem Hames.

Mr Van Zeller, Consul from Portugal, was the only failure in London of any consequence of the date of the 7th October. It was announced that a Paris merchant had received the news from India of the failure of an English firm at Calcutta to the amount of 14,000,000 francs.

Mr Redmond, who killed Mr. Dugareir, of the Journal La Presse, and of Lola Montes Memory, in a duel, had been tried for perjury and condemned to 8 years imprisonment.

The Canton of Lucerne is in a state of insurrection, also that of Fribourg; the districts of Cormont and Grugere, and the valleys of Margerney.

The Cantons demand the expulsion of the Jesuits.

The French squadron was still before Naples on the first of October.

It is said in private papers that the reformers of Naples had divided themselves into three columns. The first division is called the Legion of Death, and form the advanced guard, commanded by Lerobero; the second (centre) is commanded by Romeo, who has seized upon Margino, a large depot of arms and ammunitions of war. The rear guard is under the command of Potino. The Artillery on duty at Margino, after the noble exploit of Aspromonte joined them. The insurgents in the Abruzzes have abandoned the city, and retired to the mountains, in imitation of those of Regno.

It is said that Navarre is in rebellion, and that troops are assembled by Gavan Sefsea.

There had been another change in the Cabinet of Spain.

The Governments of Lucerne, Berne, Zurich and other Cantons, are earnestly engaged in military preparations, in view of a critical state of affairs. A majority of Cantons have agreed to send in front of the Federal army, commissioners who are to use their utmost efforts to bring about conciliation, and prevent, if possible, a hostile collision.

The army will await the result of their peaceful endeavours.

If they are unsuccessful, it will instantly cross the frontiers.

London Money Market, Oct 5.

There were no new failures announced, but there were rumours of more suspensions.

HAVRE, October, 9.

Wheat, sales at 20 a 23 francs. Rye, new 13 a 14 francs. Barley, 12 a 13 francs.

The sum of \$75,000 has lately been offered for the patent right of an artificial leg, lately invented by a Yankee in New Hampshire. It is estimated that one leg per day is wanted in New England alone, while the Mexican war is creating a good market at the south.

DEATH FROM PAREGORIC.—The New York Express, of Monday, says:—The Coroner held an inquest yesterday, in 23th street, upon the body of John Sloan, aged 4 months. It appears that the nurse gave him six drops of paregoric on Saturday morning, from the effects of which he died yesterday morning.

A WAS L'EDUCATION.—With regret we state that a fresh emente has taken place in resistance of the School Act, in the parish of St. Joseph Le Veauce. Information against four or five individuals was laid before the Quarter Sessions in July last, indictments found, and bench warrants issued for their arrest. Repeated and unsuccessful attempts were made to carry the law into effect. This session the necessary return was made, and requisite measures taken to enforce the law; but again without effect. The Head Constable first attempted the duty and was repulsed. The Sheriff and his posse comitatus next undertook it, and left town on Saturday last, but were also driven off *ri et armis*, having, however, forcibly entered the house of one Pierre Vachon, (a party implicated) who, with his two sons, were armed with adzes, and assailed and maltreated him. The habitants of the neighbourhood were shortly in arms, in great numbers, and drove back the Sheriff and his party.

In consequence, Mr. McCord, the Police Magistrate, and a detachment of the Rifle Brigade, left town yesterday for the locality in question. Their return is hourly expected.

The Sentence of death passed on Timothy and Mary Burke, at the Kingston Assizes, has been remitted, and punishment in the Penitentiary for life substituted.

We regret to announce the death of Mr. McElerry, Emigrant Agent in this city, from typhus fever, contracted in the discharge of his duties. He died on Saturday last; and leaves a large family to lament his loss.

THE NEW CIVIL LIST.

The New Civil List voted by the Canadian Parliament on the 18th May, 1846, and reserved for the expression of Her Majesty's pleasure, received the Royal sanction on the 10th August, 1847. The Royal assent was suspended more than a year, and would probably have been still longer withheld had not an Address upon the subject, passed by the Provincial Legislature at its last Session, been forwarded to the Home Government. The New Civil List cannot come into force before the several clauses from 50 to 57 of the Union Act be repealed by the Imperial Parliament.

The following items are granted in perpetuity. The New Civil List, in these items, effects a saving of £1607 15s. 4d. a year:—

Table with 3 columns: Office, &c., Amt's payable according to present Establishments, Proposed, to be allowed in future, as a saving occurs by removal of the present incumbents. Includes Governor General, Chief Justice, Judges, etc.

The following items are granted during the life, and for five years after the demise of Her Majesty. The New Civil List here, also, effects an annual saving of £1795 0s. 9d.

Table with 3 columns: Office, &c., Amt's payable according to present Establishments, Proposed, to be allowed in future, as a saving occurs by removal of the present incumbents. Includes Governor's Secretary, Provincial Secretary, Registrar's Office, etc.

These sums are all payable out of the consolidated revenue of the Province.

GREAT WESTERN RAILROAD. We take the following figures from the Report of the Engineer of the Great Western Railroad Company to the Directors. Niagara River to Hamilton, 42-10 miles. Hamilton to London 75-84 m. 2,133,086 London to Windsor, thus 109-95 " Graduation &c. as per estimate \$602,965 Superstructure &c. 1,092,500 Add 6 months interest, 6 pr ct 50,864 1,746,320 This is equal to \$15,875 per mile. Port Sarma branch, 49-35 miles thus: Graduation &c. \$233,752 Superstructure 412,500 Add 6 pr ct. interest 6 months 19,387 665,639 Equal to \$13,312 per mile. The report gives the estimated receipts of the road as follows: 200 through passengers per day, of 1st class at 2 cts per mile and 100 of 2nd class at 1 cent 416,000 If the way passengers equal 50 per ct. per day of the above at 2 1/2 cts per mile 104,000 If emigrants for half a year should equal 200 per day at \$1 38,500 500,000 lbs flour from Detroit to Hamilton at 20c 100,000 50,000 tons weigh freight 238,000 Mails and expresses 15,500 Total \$900,000 Estimated expenses, 38 pr ct 342,000 Net earnings \$558,000 On a capital of \$6,000,000 it would divide a fraction over nine per cent. If built to Sarma, the capital required would be nearly a quarter less, according to the engineer's estimates, which are:— From Niagara to Windsor, 4,954,080 " Niagara to Sarma, 3,793,913 \$1,161,167

CANADA GAZETTE, Oct. 16th.—The Provincial Parliament is further prorogued to November 25th.

The Royal Assent to the Bill entitled, An Act for granting a Civil List to Her Majesty, which was reserved by the Governor-General, is intimated by proclamation.

A reward of twenty-five pounds is offered for the discovery of the persons who cropped the manes and tails of some horses of John Jelleries, Esquire, of Rawdon, L. C.

The loss occasioned by the disease in potatoes threatens to be more severe this season than last. A friend in Maine, who sent his whole crop, valued at a thousand dollars, to this city, will have it all returned upon his hands.—[Boston Transcript.

FOOD CHEAPER THAN MANURE.—Within the last few days Indian meal has been sold at 12s. 6d a barrel, or about £7 per ton. The present price of a ton of guano is £8.—[Belfast News Letter.

IMMENSE ADVANCE.—Mr. James Coleman, one of the Commissioners of the Dundas and Waterloo Road, has handed us the following statement of the prices obtained last Saturday, at the letting of the Gates on the above Road.

Table with 2 columns: No., Price. No. 1—£1196; being an advance of £557. No. 2—932. No. 3—701.

The three gates producing the extraordinary sum of two thousand eight hundred and thirty-nine pounds! exceeding the amount realized last year by one thousand two hundred and forty-four pounds!!

The Road will shortly be finished and then, we learn, another gate will be erected, which will realize at least £500 more. The prosperity of this section of Canada is truly wonderful. Who can tell what the tolls on this line of road will amount to when the Brock Road is finished.—[Dundas Warder.

THE CANALS OF THE ST. LAWRENCE.—The Kingston Wing of the 13th says:—"All the short Canals on the river, between Prescott and Cornwall, are now completed, for the Albion steamer came up yesterday from Montreal, deeply laden, and passed through the whole of them. The Lachine Canal is expected to be finished some day this week, and the Albion expects to be the first vessel to pass through it."

LARGE ONIONS.—John Gilmore is not less known for his ardent denunciations of the Yankees and the Papacy, than for his skill in raising vegetables. One of the above class lays before us, whose largest circumference is 15 inches, smallest 12 inches, and weight 18 ounces, a specimen of 50 bushels sold to Forbes & Brownlee, half of which will average a pound each. They are called English Reds, and were raised this season from the seed.—[St. Catharine's Journal.

NEW STEAMERS ON LAKE ONTARIO.—The two steamboat Companies who own the Lady of the Lake and the Rochester, and the Cataract and the Niagara on Lake Ontario, will each, we understand, build a new boat the coming winter of the first class, to be in readiness in the spring to form a night line to run in connection with the cars of the Oswego and Syracuse Railroad.—[Oswego Times.

We have seen a list of deaths in hospital at Grosses Isle from the 5th May to the 9th of the present month, which comprises not less than 34 feet of paper! in length. The names, &c., being placed in line.—[Quebec Mercury.

Fourteen deserters from different parts of Canada, and belonging to different Regiments, arrived at Quebec, on Wednesday, the 20th, under escort of a party of the 23rd Fusiliers.—[Montreal Courier.

From the Globe. BY MAGNETIC TELEGRAPH. Arrival of the Caledonia. NINE DAYS LATER FROM EUROPE. BUFFALO, Nov. 5.

Late this afternoon we were advised of the arrival of the Caledonia from Liverpool. The following advices per that ship have reached us:—

LIVERPOOL MARKETS. FLOUR AND GRAIN.—Best Western Canal Flour, 25 s. a 27s.; Richmond and Alexandria, 25s. a 26s.; Philadelphia and Baltimore, 25s. a 26s. New Orleans and Ohio, 22s. a 23s.; U. S. and Canadian, 20s. a 21s.

WHEAT.—U. S., White and mixed, per 60 lbs 7s. a 8s.; Red, 6s. a 7s. OATS.—45 lbs, 23s. a 28s. OATMEAL.—240 lbs., 23s and 24s. INDIAN CORN.—480 lbs., 30s a 32s; BARLEY.—Per 60 lbs., 3s. a 4s.—540 lbs., 30s. a 40s.

P. S. The markets up to this moment have been losing ground. Flour cannot be quoted beyond 26s per barrel, and Indian Corn shows no tendency to rise above 30s per quarter.

The stoppage of the Liverpool Banking Company is just announced, but the liabilities are not heavy.

The corn market was of course sensibly influenced by the unparalleled stringency of the money market.—The distressing monetary pressure, announced in our last advices, has, during the last fortnight, continued to rage with unabated severity, involving several additional failures, and diffusing a deep impenetrable gloom throughout the whole Commercial community of Great Britain; to such a point of intensity, has the unaccessibility of money now arrived, that there is scarcely one house which can be looked upon without suspicion, no matter how exalted its position; while a feeling of unmitigated anxiety, is every where perceptible.

Among the more recent failures, we have to announce that of E. F. Thomas, Son, & Lefevre, an old Brazilian house; Barclay Brothers, of London, whose liabilities are put down at £450,000 sterling; Little & Co., also of London; J. W. Morely, of Manchester; S. Phillips, Sons & Co. of London; Mccarter, Son, and Son, Liverpool; Southam, of Ashton-under-Lyne; E. & J. Andrews, of Manchester; White & Co., of Waterford, &c.

We may avoid further enumerations, by stating that altogether 55 houses have broken down, or suspended payment, since the departure of the last steamship.

Yesterday it was announced that the Royal Bank of Liverpool had been compelled to suspend payment, which proved too correct. At present it is impossible to give, at full length, a reliable statement of the position of the establishment. It is understood to possess assets sufficient to meet all liabilities.

In the present universal confusion and alarm, it can well be conceived how deeply manufacturing operations have been affected. Business appears to be quite at a stand still, without the slightest prospect of a reaction, although good orders are stated to be held by many firms, yet in the present prostration of monetary affairs, they abstain from executing them; indeed the pressure for money has been so great that sales have been forced for cash, at prices considerably below the lowest ordinary quotations.

PROVISIONS.

BEER.—Prime Mess, per tierce 86s a 92 6d; Ordinary, 75s a 83s; Mess, per bbl 46s a 52s 6d; Ordinary 40 a 45s; Prime 32 a 36s.

PORK.—Prime Mess new, per bbl 60 a 67s; old, 40 a 50; Mess 65 a 70; Prime, 45 a 50s; Bacon, long middles free from bone, per cwt 32 a 50; Tongues, Ox in pickles per doz 12 a 18s; Pigs per cwt, 20 a 30s; Hams smoked, ordinary, in canvas, duty paid, per cwt 25 a 40; Cheese fine, duty paid, per cwt, 52 a 58; middling 42 a 49s; ordinary, 20 a 40s; Lard, leaf in kegs, per cwt 58 a 60s; ordinary to middling, 50 a 53; inferior and grease, 29 a 33s.

RICE.—Carolina, finest quality, 18s. to 21s.

Parliament has been prorogued until the 17th of November, when it will be further adjourned until January, for the despatch of business.

Toronto Market Prices.

Table with 4 columns: Nov. 6, s. d., s. d., s. d. Includes Flour, Oatmeal, Wheat, Rye, Barley, Oats, Peas, Potatoes, Onions, etc.

Advertising Department.

EMIGRANT CONVALESCENT HOUSE,
1st November, 1847.

The undersigned begs leave to acknowledge the receipt of the following Articles of Clothing:—from S. Workman, Esquire, for the Convalescents, viz.—6 pair of Trowsers, 2 Vests, 1 Coat, 3 Flannel Shirts, 2 Flannel Drawers and a quantity of Shoes, Stockings, &c., and he will continue to receive or send for articles of clothing to any part of the City, on receiving a note to that effect, for the above good purposes. It is a well known fact to the public, that in consequence of illness, many of these poor creatures have been plundered of their all, from port to port, counting *le re*, consequently leaving many of them in a state of nudity to enter on the Canadian winter.

WILLIAM RAMSEY,
Superintendent.

Toronto, Nov., 1, 1847

All the city papers to give three insertions.

To Physicians, Surgeons, &c.

THREE or FOUR Licensed Medical Practitioners are wanted immediately at the TORONTO EMIGRANT HOSPITAL

Each Medical Attendant—with the assistance of a Medical Student, as Clinical Clerk and Assistant Dispenser—will be required to take charge of 200 Patients; and will receive 25s. per Day for his services.

Board of Health, Office,
Toronto Oct. 25, 1847.

All the City Papers to give three insertions.



Home District Mutual Fire Company.

Office.—Corner of Alfred and Bay Street,
Toronto.

INSURES Dwellings, Houses, Warehouses, Buildings in general, Merchandise, Household Furniture Mills Manufactories &c

DIRECTORS:

- John McMurrich, William Mathers,
- W. A. Baldwin, A. McMaster,
- John Eastwood, J. B. Warren,
- James Lesche, B. W. Smith,
- John Doel, Benjamin Thorne,

J. H. PRICE, Esq., President.
J. RAINS, Secretary.

All Losses promptly adjusted.

Letters by Mail must be post-paid.
December 26, 1846.

1847.

Brewer, McPhail & Co.

RESPECTFULLY call the attention of the Friends, and the Public, to the extensive assortment of

STATIONERY, BOOKS, PAPER HANGINGS

Drugs, Medicines, Perfumery, &c.,

which are sold at low prices, Wholesale and Retail. Consisting in part of

Stationery:

Writing Paper, Pens, Ink, Lead Pencils, Printing Papers, and Fancy Articles.

Books:

Standard Works, and the Cheap Publications School Books, Toy Books, &c.

Paper Hangings:

A great variety of the latest and most fashionable patterns, selected from the English, French, and American markets.

Genuine DRUGS and MEDICINES,
Perfumery, &c. &c.:

A complete Assortment. Patent Medicines Fancy Soaps, &c. &c.

School Books:

All kinds in use in Canada. Now publishing, the Irish National Reading Books, authorized by the Board of Education

Fancy Articles:

Ladies' Work-Boxes, Gentlemen's Dressing Cases, Writing Desks, Pocket Books, Ladies' Companion, Toys in great variety, &c.

Book Binding:

In all its branches, together with a full Assortment of all articles belonging to the Trade. Cash paid for Cotton and Linen Rags, or taken in Exchange for Goods.

Merchants or others wishing to purchase such Goods, can feel confident of obtaining them at the lowest prices.

Catalogues of our Stock may be had at No. 46, King Street East, Toronto,
June 8th, 1847.

Mr. C. Kahn,

SURGEON DENTIST, King Street, 2 doors West of Bay street, Toronto.

Farm for Sale.

A FARM of 200 Acres, situated in the township of Dimmities, being Lot No. 9 in the third concession on the main road to Paris, and about 1 mile from the thriving village of Saint George: will be sold upon reasonable terms, the owner being anxious to purchase a greater quantity of land to settle his sons. There are 140 acres cleared good fences, a good frame house built in '37, a large orchard, chiefly of grafted fruit, and living springs on both of the front corners of the lot. It is 100 rods wide by one mile in depth; thus making it convenient for dividing into two farms. The Great Western Railway is expected to pass within half a mile south of the premises. Price £1500 all down but if the party desire it, half down will be taken, and the remainder in yearly instalments, with interest.

Price considered unprecedently low. Application may be made to the editors of the *Canada Farmer*, or to the subscriber on the premises.

LEVI WILLSON

HOME DISTRICT BUILDING SOCIETY.

AT A MEETING of the Board of Directors, held on the 17th instant, it was

Ordered—That the Entrance Fee and First Instalment on each Share be called in on the first day of November next, and that the future payments thereon shall be payable on the first day of each successive month.

R. C. McMULLEN,

Secretary and Treasurer.

Nelson Street,
House lately occupied by the "H. D. Mutual Fire Insurance Co."

Toronto, September 24, 1847.

Colonist and Mirror to insert till forbid. 483

Notice.

THE BOOK, STATIONERY, PAPER-HANGING, and BINDING BUSINESS hitherto conducted by R. BREWER will, from and after the 1st of April ensuing, be carried on by the undersigned firm, under the Name of

Brewer, McPhail, & Co.,

At the present well-known Stand, No. 46, KING STREET EAST.

In connection with the above, the Subscribers will open, on the 1st of May next, in the same Premises, the

Drug & Medicine Business,

In all its Branches, Wholesale and Retail. This Department will be conducted by one of the firm, Mr. JOHN BENTLEY, who possesses, from many years experience in several of the best houses in England and in this Country, a thorough and practical knowledge of the Profession.

RICHARD BREWER,
EDWARD MCPHAIL,
ROBERT MCPHAIL,
JOHN BENTLEY.

Toronto, 9th March, 1847.

J. Ellis, Civil Engineer.

HORIZONTAL, Inclined, and Undulating Lines of Railways Surveyed, Macadamized and Plank Roads, Canals, Docks, Harbour, every description of Drainage, Tunnels, and Bridges of Brick and Stone, Iron and Wood, both Pendant and Lassicent, with correct Specifications. Sections or Model Maps and Estimates showing the true cost of construction, founded upon Rules and Principles strictly Mathematical, obtained through sixteen years experience and active practice, both as Engineer and Contractor

N.B. J. E. will give detailed Estimates, if required, to persons employing him, showing and proving that the Calculations are founded upon true principles, with Plans, Sections, or Model Maps, showing the true Cubic Measurements of Cuttings, Embankments, Grading, and S'le Drains, so simplified that almost any person may keep a correct check as the work proceeds, upon the quantity of work done.

Peter street, Toronto,
January, 1847.

R. H. Brett,

161 KING STREET, TORONTO.

GENERAL MERCHANT—WHOLESALE

IMPORTER of HEAVY HARDWARE, Birmingham, Sheffield and Wolverhampton STEEL GOODS, EARthenWARE, and GLASSWARE in Crates and Hhds.

Also.—Importer and Dealer in Teas, Sugars, Tobaccos, Fruits, Spices, Oils, Paints, Dye Woods, Gunpowder, Shot, Window Glass, Cotton Bating, Wadding, and Candle Wick.

Together with a select Stock of STATIONERY, English, French & German Fancy Goods, Combs, Beads, &c. &c. &c.

Toronto, Nov., 1846.

1-6m.

CROWN LAND DEPARTMENT.

Montreal, 10th March, 1846.

NOTICE is hereby given, by Order of his Excellency the Administrator of the Government in Council, to all persons, who have received Locations of Land in Western Canada, since the 1st January, 1832, and also to parties located previous to that date, whose locations were not included in the list of unpatented lands, liable to forfeiture, published 4th of April, 1839, that unless the claimants, or their legal representatives, establish their claims and take out their patents within two years from this date, the land will be resumed by the Government, to be disposed of by Sale.

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Notice to Agriculturists.

JOHN BELL, No. 7, VICTORIA STREET, TORONTO, CARRIAGE, SLEIGH, AND AGRICULTURAL IMPLEMENT MANUFACTURER, begs to acknowledge his sincere thanks to his numerous Friends and Customers, who, for a series of years, have so liberally patronized him in the above line. J. B. continues to manufacture, and keeps constantly on hand, Double and Single Carriages, Lumber Waggons, Carts, Lumber and Pleasure Sleighs, Cutters, Harrows, Scotch Ploughs (Wooden)—an article that defies competition, one of which was awarded the first prize at the late Provincial Agricultural Exhibition—Horse Rakes, Turnip Drills, and every article in the Agricultural Implement line.

He calls particular attention to his "Premium two Horse Reaper," which obtained the prize at the late Meeting of the Agricultural Society of this District, and was pronounced by the Judges to be superior to any Machine of the kind ever imported into the Country. The machines are warranted to cut from 15 to 20 acres per day in a satisfactory manner, and will be sold at \$90 cash or \$100 at six months with good security.

J. B. in offering the above mentioned articles to the Public, begs to be understood to warrant every article manufactured by him, and having had a long practical experience in the business, and employing none but first rate Mechanics, feels confident that he can give general satisfaction.

All orders punctually executed when accompanied with cash or approved references in the City.

Workman Brothers & Co.,

No. 36, KING STREET,

OFFER FOR SALE:—

- 60 tons English Iron,
- 20 tons Best Iron,
- 20 tons Swedes Iron,
- 15 tons Hoop and Band Iron,
- 10 tons Sheet Iron,
- 3 tons Plough Shares,
- 2 tons Wagon Boxes,
- 2 tons Cast Steel,
- 3 tons Blister Steel,
- 1 ton Spring Steel,
- 1 ton Eagle Steel,
- 2 tons Camp Ovens,
- 2 tons Bellied Pots,
- 5 Blacksmith's Bellows,
- 60 Blacksmith's Vices,
- 15 "Hills" warranted Anvils,
- 120 Sugar Kettles,
- 40 Potash Coolers,
- 10 boxes "Pontpool" Plates,
- 25 Box Stoves, 21 to 36 inches,
- 450 casks Cut Nails,
- 50 casks Wrought Nails,
- 20 casks Patent Pressed Nails,
- 35 casks Horse Nails,
- 40 casks Wrought Spikes,
- 40 casks Coil Chain,
- 200 boxes Windows Glass,
- 2 tons Putty,
- 20 dozen Common English Spades,
- 10 dozen Common English Shovels,
- 5 dozen Irish Spades,
- 2 dozen Scotch Spades,
- 60 dozen Steel Shovels,
- 8 dozen Steel Shovels,
- 10 dozen Grain Scoops,
- 40 Philadelphia Mill Saws,
- 40 "Fairbanks" Platform & Counter Scales.

JUST RECEIVED, ex ships *Capricorn*, *Baron of Bramber* and *Larkshire*, in addition to their present Stock of HARDWARE.

18 PACKAGES of SHEFFIELD & BIRMINGHAM

Shelf Goods,

With an Assortment of American Hardware.

Toronto, 25th March, 1847.

Fairbank's Platform and Counter Scales.

THESE SCALES are constructed with great care by experienced workmen, under the supervision of the inventors. Effort is made to secure, not only perfect ACCURACY, but also the greatest STRENGTH and DURABILITY. They have been long known and severely tested, and have been found ALWAYS RIGHT.

These Scales are adapted to every kind of business transacted by weight; and from the extensive use, and the high repute they have attained, both in England and the United States, as well as in other countries, may now be regarded as the universal standard.

Scales for weighing Wheat, both portable and to be set in the floor, furnished with weights to weigh even bushels. For Sale by

WORKMAN BROTHERS & Co.

Toronto, 22nd March, 1847.

NEW CHEAP

Clothing and Tailoring ESTABLISHMENT,

130 YONGE STREET, TORONTO.

Samuel Morphy

BEGS to inform his numerous Friends and the Public that he has commenced business in the above line at No. 130 Yonge Street, Two Doors North of Queen Street, and adjoining Mr. Good's Foundry.

A VARIETY OF READY-MADE CLOTHING suitable for country use, constantly on hand and will be sold Cheap for Cash.

Farmers' Cloth received and made up to order on the most reasonable terms.

Toronto March 17, 1847.

10

Boot and Shoe Store,

4, CITY BUILDINGS, TORONTO.

SIGN OF THE GOLDEN BOOT.

THE Subscriber embraces the present opportunity of returning thanks to his numerous Customers, and the Public, for the liberal patronage he has received from them since his commencement in Business, (being about fourteen years,) and begs to inform them, that having recently added to his Premises, and greatly enlarged his Stock, he has now on hand a large Assortment of Ladies', Gentlemen's, and Children's BOOTS & SHOES, INDIARUBBERS, &c., of all sizes and quality, which he is disposed to sell on the most moderate terms.

JAMES FOSTER.

January 18, 1847.

FOR Cheap Birmingham and Sheffield Goods, try the

NEW HARDWARE STORE,

No. 77 Yonge Street, a few doors North of King-st.

J. Shepard Ryan,

Having a Partner in England, can purchase Goods at as Low Prices as any other House, and respectfully solicits a share of public patronage.

CASH PURCHASERS will find it to their advantage to give us a call, as we circulate on clearing off our Old Stock every winter.

Toronto, 1st January, 1847.

1-12m.

THE Canada Farmer,

A SEMI-MONTHLY JOURNAL OF AGRICULTURE, INTERNAL IMPROVEMENT, LITERATURE, SCIENCE, AND GENERAL INTELLIGENCE, is published every other SATURDAY Morning, at the Book & Stationery Store of R. BRILWELL, 46 King-street, Toronto.

TERMS:

Single Copies, 5s.; any person remitting Subscription for Three Copies, will receive one copy gratis. All Payments to be made in Advance.

Advertisements inserted on the usual terms.

All Communications to be addressed "To the Editors of the Canada Farmer, Toronto," and Post paid.

It will be seen by the above that our terms are greatly reduced. If the *Canada Farmer* is not now the cheapest, neatest, best conducted, and most useful family paper published in the Province, or, indeed, upon this continent, then we are mistaken, and so are many of our brethren of the press; and if it does not soon obtain a larger circulation than any publication in the country, we shall be much disappointed.

A List of authorized Agents will be published as soon as appointed, of whom the Paper can be obtained, in different parts of the country.

AGENTS FOR "THE CANADA FARMER."

In addition to the agents whose names are given before, nearly a hundred have lately been appointed. We may give their names on some future occasion.

James Wilson, Wm. A. Stephens, and Thos. C. Hagerman, (Travelling Agents.)

Local Agents.

- Windsor—Mr. James A. H. Gierrie, Bookseller.
- Oshawa—Mr. Gavin Burns, Postmaster.
- Brimmendale—Mr. James McFeeters, Merchant.
- Nacassette—Mr. Myron Moses, Inkkeeper.
- Port Hope—Mr. Alexander Fisher, Merchant.
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- Peterboro—Mr. Robert Nichols, Merchant.
- Cobourg—Mr. John Field, Merchant.
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- Colborne—Mr. Albert Yerrington, Postmaster.
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- Napanee, Midland District—Mr. T. A. Dunham, Merchant.
- Kingston—Messrs. Oliphant & Watt, Merchants.
- Gananoque—J. Lewis Macdonald, Esq.
- Brockville—Mr. Henry Jones, Postmaster.
- Merrickville—Mr. E. H. Whitmarsh, Postmaster.
- Kemptville—Mr. Wm. H. Bottom, Postmaster.
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- Chinguacousy—Mr. P. Howland, Postmaster.
- Bronte—Mr. B. Haganan.
- Guelph—John Smith, Esq.
- Palermo—H. M. Switzer.
- Thorold, and parts adjacent—J. J. Ball, Farmer.
- St. George, G. D.—Samuel Stanton, Esq.
- London—Thomas Craig, Brockville.
- Woodstock—H. C. Barwick, Esq.
- Port Dover—James Riddell, Merchant.
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- Burford—W. M. Whitehead, P. M.
- Delaware—John Drake, P. M.
- Jagersoll, Oxford—Darius Doy, Esq.
- Haldimand—John Loyde, P. M.

A travelling Agent will proceed Eastward in a few days, to solicit subscribers for the Farmer.