

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- |                                                                                                                                                                                                                                                                                                                                                |                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Coloured covers/<br>Couverture de couleur                                                                                                                                                                                                                                                                             | <input type="checkbox"/> Coloured pages/<br>Pages de couleur                                                       |
| <input type="checkbox"/> Covers damaged/<br>Couverture endommagée                                                                                                                                                                                                                                                                              | <input type="checkbox"/> Pages damaged/<br>Pages endommagées                                                       |
| <input type="checkbox"/> Covers restored and/or laminated/<br>Couverture restaurée et/ou pelliculée                                                                                                                                                                                                                                            | <input type="checkbox"/> Pages restored and/or laminated/<br>Pages restaurées et/ou pelliculées                    |
| <input type="checkbox"/> Cover title missing/<br>Le titre de couverture manque                                                                                                                                                                                                                                                                 | <input checked="" type="checkbox"/> Pages discoloured, stained or foxed/<br>Pages décolorées, tachetées ou piquées |
| <input type="checkbox"/> Coloured maps/<br>Cartes géographiques en couleur                                                                                                                                                                                                                                                                     | <input type="checkbox"/> Pages detached/<br>Pages détachées                                                        |
| <input type="checkbox"/> Coloured ink (i.e. other than blue or black)/<br>Encre de couleur (i.e. autre que bleue ou noire)                                                                                                                                                                                                                     | <input checked="" type="checkbox"/> Showthrough/<br>Transparence                                                   |
| <input type="checkbox"/> Coloured plates and/or illustrations/<br>Planches et/ou illustrations en couleur                                                                                                                                                                                                                                      | <input checked="" type="checkbox"/> Quality of print varies/<br>Qualité inégale de l'impression                    |
| <input checked="" type="checkbox"/> Bound with other material/<br>Relié avec d'autres documents                                                                                                                                                                                                                                                | <input checked="" type="checkbox"/> Continuous pagination/<br>Pagination continue                                  |
| <input checked="" type="checkbox"/> Tight binding may cause shadows or distortion<br>along interior margin/<br>La reliure serrée peut causer de l'ombre ou de la<br>distorsion le long de la marge intérieure                                                                                                                                  | <input type="checkbox"/> Includes index(es)/<br>Comprend un (des) index                                            |
| <input type="checkbox"/> Blank leaves added during restoration may appear<br>within the text. Whenever possible, these have<br>been omitted from filming/<br>Il se peut que certaines pages blanches ajoutées<br>lors d'une restauration apparaissent dans le texte,<br>mais, lorsque cela était possible, ces pages n'ont<br>pas été filmées. | Title on header taken from: /<br>Le titre de l'en-tête provient:                                                   |
|                                                                                                                                                                                                                                                                                                                                                | <input type="checkbox"/> Title page of issue/<br>Page de titre de la livraison                                     |
|                                                                                                                                                                                                                                                                                                                                                | <input type="checkbox"/> Caption of issue/<br>Titre de départ de la livraison                                      |
|                                                                                                                                                                                                                                                                                                                                                | <input type="checkbox"/> Masthead/<br>Générique (périodiques) de la livraison                                      |

Additional comments: /  
Commentaires supplémentaires:

Wrinkled pages may film slightly out of focus.

This item is filmed at the reduction ratio checked below /  
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12X	16X	20X	24X	28X	32X	



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

Vol. I.

TORONTO, SATURDAY, JUNE 19, 1847.

No. 11.

## ON THE MAKING OF CHESHIRE CHEESE.

(Continued from our last.)

It has been generally considered that a gallon of milk (supposing little or no cream has been taken from it) will produce, upon an average of the season, 1lb. of saleable cheese; that is when the cheese is four or five months old. In autumn there is always more curd from the same quantity of milk than at any other part of the season.

During wet weather there will sometimes be more milk than usual, though not a proportionately greater quantity of curd. An experienced dairymaid soon detects these different results, and makes allowances accordingly. I have met with no dairymaid who regularly weighs the salt; but a highly-respectable farmer, whose wife makes a first-rate cheese, has given me the weight used in his dairy, as near as the same can be computed. It is as follows:—

	lbs.	lbs.	oz.	To salt is used.
In March and April their cheeses average about	30	and about 6	2	10
In May, June, and July	20	"	1	12
In August	20	"	1	12
In September	20	"	1	4
In October & November	20	"	0	10

In the above instance it will be seen that more in proportion was used in summer than at other times, and that the average is 1 lb. of salt for 47lbs. of dried cheese (or say forty gallons of milk).

I was favoured with an account from another dairy in which, to oblige me, the salt for *once* was weighed. For a cheese which weighed 46 lbs. at four months old) 1 lb. 1 oz. was used. This is also after the rate of 1 lb. of salt for 40 lbs. of dried cheese, and was said to be the quantity uniformly used throughout the year in this dairy, which consisted of about forty cows.

A third account is from a dairy of sixteen cows: the quantity of salt used was generally about 1lb. for 45 lbs. of cheese, but the dairymaid made a trial last year with one cheese, using only three quarters of a pound. The cheese was made at the beginning of June, and when weighed in the middle of September was 42lbs. This cheese was admitted to be better than the others in the same dairy.\*

The salt termed the "middle grain" is the kind generally used; but some use "fine." Before applying it, the curd is cut into three or four equal-sized pieces, and each of these is broken into smaller pieces by hand, or is passed once through the curd-mill. The salt is then scatt'ed over it, and the "breaking" continued either by the hands, the curd-mill, or both, until the salt is well intermixed and the curd is perfectly crumbled. Each portion as it is broken is put into the cheese vat, in which has first been placed a clean and rather finer cloth than was used for the previous process, and the curd is compacted as much with the hands as possible. To admit of the curd being properly pressed it is necessary to put it into such a vat as it will *overflow* by at least two inches. It is also rounded up a little in the middle. The cloth is then brought over it, and tucked in at the edges of the vat with a small wooden

\* It may not be out of place here to state that at Northwich, which is about the centre of the county, and where the principal salt-works are found, salt is at present bought at 8d. per bushel of 56lbs. In large quantities the price is considerably lower.

† The curd-mill is of recent introduction, and it is only in a few dairies that it is met with; some dairymaids highly approving, others objecting to it. I think it will be soon more generally adopted, as it effects a saving in time and breaks the curd more regularly than it can be done by hand.

knife or other dull edged instrument. In order to support the outside of that part of the curd which is above the vat, and to keep it in proper form when the press is applied, a tin or zinc hoop or "fillet," the edges of which are rounded off so as not to cut the cloth, and the ends lapping over and unattached so that the same fillet will do for different sizes of cheese, is introduced round the inside of the top of the vat. The "fillet" thus placed sinks with the curd, and having small perforations in it, the emission of the whey is effected through it as through the perforations of the vat. Since it has become the fashion to make Cheshire cheeses *thicker* than they used to be, it is no unusual thing to see fillets 6 or 8 inches broad.

The vat is now again placed under the screw or lever press, and the skewering is also continued. The pressure is increased at intervals, and the skewers inserted in fresh places to accelerate as much as possible the discharge of the remaining whey or "thrustings," as it is now termed.

In the course of an hour from the time of salting, the curd is taken from under the screw or lever press and out of the vat, for the purpose of being turned upside down, which is done on a table. In the first place, the angles of that side which was topmost in the vat are cut off, a circular piece, two or three inches deep, is often also scooped out of the centre, and both are broken small with the hands and rounded up in the middle. The cloth being drawn over the curd, the vat is then turned down upon it, and re-turning the vat with the curd in it, the other angles and centre part of the curd, are broken in a similar manner; after which the tin fillet is put on, and the screwing and pressing are continued as before for about half an hour or an hour. It will, probably, be two or three o'clock in the afternoon before the curd (or cheese, as it may now be termed) is *got under the press*, that is, when it is removed from the screw to the stone press; but where the lever press is used instead of the screw, which, I think, might always be advantageously done, all the change that will now be required is a little more weight at the end of the lever.

Before turning the cheese for the purpose of placing it under the press, it is usual to prick it perpendicularly down with a skewer in several places, for the purpose of making drains for the whey, after having been so turned. A clean cloth is applied, and where the lever press is not used, the cheese is put under one of the lightest of the other kind. A pressure of six, eight, or ten cwt., according to the size of the cheese, will be sufficient. This is generally accomplished by about two or three o'clock in the afternoon. Smaller skewers are now used, and remain (by removing them occasionally into fresh places) until about four o'clock; they are then withdrawn, but the cheese remains half an hour longer undisturbed, to allow the whey to drain from it. It is then or some time in the evening, turned, a clean cloth is put over it, and the pressing continued. If the lever press be used, the weight may be a little increased.

On the *second day* the cheese is generally turned twice or three times; it is also skewered, and clean cloths are used each time of turning. I would observe here, that if any of the clothes are used again before they have been washed and dried in the open air, great care should be taken that they be well scalded. The press used for at least the first two days,

and, if possible, during the whole process, should be situate in the dairy, kitchen, or some other moderately warm place, otherwise the whey will be longer in discharging, and more liable on that account, from the acidity which it soon acquires, to injure the flavour of the cheese. Another advantage of the lever press is, that in cold weather it may be easily moved to a sufficiently warm place, which cannot be the case with the common presses. Those common presses are chiefly made of one square block of stone, fixed in a wooden frame, but are also made of wooden boxes filled with slag or other heavy material. They are generally fixed to the walls of the dairy, for the purpose of being staid to them, and being there most out of the way; when there is not room for them in the dairy or kitchen, they are placed in the salting room or pantry, which latter places are often much too cold for the purpose, as the whey seldom gets thoroughly extracted when the presses are in cold situations.

On the *third day* the cheese is again turned once or twice, but ought not to require any skewering. The heaviest press is now had recourse to, and for a cheese of sixty or seventy pounds weight about thirty cwt. will be pressure sufficient; but some dairy maids apply as much as two tons, their heaviest press being that weight. A cheese press of this weight, made of a block of red freestone, would be three feet and two inches long, 2 feet 8 inches wide, and 3 ft. 2 in. high.

On the *fourth day*, it is usual in most dairies to discontinue the pressing, but in others it is continued for a day or two longer.

The cheese is then removed to what is called

*The Salting and Drying Room.*—Sometimes these are distinct apartments, but more generally one room suffices for both purposes. The salt can now, of course, be only applied externally; and the good, if any, effected, is to harden the coat of the cheese. The cheese I have before alluded to, as having been made with three-quarters of a lb. of salt, and which was much above an average in quality, was removed, as an experiment, *direct from the press to the cheese room*. I am inclined to think this the better system, or at least that a great deal of the present labour of the salting-room might be dispensed with.

It is, however, only right to state that in most dairies of this county the practice of *external salting* still continues. I will therefore describe the process usually adopted.

The cheese is taken out of the vat, and a strong bandage, called a "fillet," about two inches broad, and long enough to go three times round the cheese, is used. As this bandage is put on, salt is applied underneath it, to the coat of the cheese. The bandage is fastened with strong pins, the cheese placed on stone or wooden shelves or benches, and salt spread on the top to within an inch or two of the edges. The cheese is turned daily, and fresh salt and a clean bandage applied. In some few dairies, it is the practice, before the salting above described to half immerse the cheese for two or three days in strong brine, kept in a shallow tub for that purpose. The salting process, above described, is continued for various periods, by some for five or six days, by others as long as three weeks. I will give the rule followed by the farmer who furnished me with the particu-

lars of his salting of the curd. It is as follows:—

From the beginning of the season (about March) to the time of the cow being turned out to grass (12th May), the cheese remains in salt four days; from thence to the end of July, ten days; in August eight days; September six days; and the rest of the season, 4 days.

It is obvious, from the practice in this dairy, that it is considered necessary for the cheese to remain in salt longer in the middle of summer than at other seasons.

After this salting the cheese is well wiped or washed, has a clean bandage put round it, and continues in the same room, or an adjoining one, on wooden shelves for the purpose of being *dried*. It is turned once a day, and remains until it is considered sufficiently dry for being removed to the *cheese-room*. The length of time for keeping cheese in the "drying room" varies from seven to twenty days, and is regulated by the temperature of the weather, or the *cheese-room*, to which it has to be next removed. In hot weather, and especially if the cheese be exposed to the heat of the noon-day sun, the change from a *too cold drying house* (as many often are, except, in the middle of summer) to a *too hot cheese-room*, is calculated to cause cracks in the cheese, which said cracks have from time to time to be filled up by the application of bacon fat or whey butter otherwise mites would soon be generated, and the appearance of the cheese detracted from. To prevent this cracking as much as possible, the salting and drying houses have rarely, if ever, the windows opened, and drafts or currents of air are thereby prevented. This precaution is also adopted in the *cheese-room*; and, in addition, the light is excluded either by a shutter or *blind*, as I have before stated.

The cheese I have before alluded to, as having been made without any *external salting*, as an experiment, and which was taken *direct from the cheese-press to the cheese-room*, was made in the beginning of June, and in the end of September was ready for the market.—The quality of the cheese was better than that made in the ordinary way, and all the labour of the salting and drying house was saved. My own impression is, as I have already hinted, that the drying-rooms are often *too cold*; and that if it be found to be desirable, as perhaps it may be in some dairies, to continue the use of such drying-rooms, the heat should be kept as near as possible at from 50 deg. to 55 deg. In concluding my remarks on this room, I must not omit to observe that it is necessary the cheeses should remain *bandaged*, in order to prevent their bulging, and also that they should be turned over once a day. If one cheese be made daily, one will consequently—in the course of a certain time after the season of cheese-making commences—have to be removed every day to the cheese-room. When taken to this room, the situation of which I have before described, it is usual to scrape and clean the coat of the cheese, and to place it, in the first instance, in the coolest part of the room often for a few weeks upon shelves or benches, which are cooler than the floor, subsequently on the coolest part of the floor, and ultimately upon the warmest part. It is usual to continue the bandage or "fillet" for several weeks after the cheese gets into this room, and, indeed, in some dairies until it is sold. It is also usual to turn the cheeses, and

wipe them with a cloth daily, for at least three or four months, and every alternate day afterwards; and when there are any symptoms of cracking, bacon fat, hog's lard, or some other fatty substance is applied. The floor of the cheese-room is generally covered with dried rushes, or a coarse grass, resembling rushes, called "smiddle" or wheat-straw. The floor should be level, otherwise the cheeses will not be kept easily in shape; and should be well washed with hot water and soft soap about twice a year. The temperature of the cheese-room should, when attainable, range between 60 deg. and 65 deg. When this is the case, the "first make" will generally be ready for the factor by Sept. or October, and the "latter make" by December or January; but in consequence of many rooms being badly situated and imperfectly heated, the farmer very often does not get his cheese into the market until two or three months after these respective periods. The object gained in having the cheese-room about the temperature I have named, is three-fold: the perfect fermentation and ripening of the cheese; the reduction of labour; the quicker return of profit.

It is usual in this county to sell the cheese by what is sometimes called the "long hundred" (120 lbs. to the cwt.); but the factors often require 121 pounds. The price varies with the quality of the article, the state of the market, and the size of the cheese: for large cheeses always sell for more per lb. than smaller ones. There is perhaps nothing more difficult to ascertain than the average price of cheese, inasmuch as both farmer and factor make the price a secret. The highest I heard of last season (1843) was 72s. per cwt. of 120 lbs., or a little more than 7d. per lb.; the lowest would probably be about 40s. or 45s.—*Journal of the Royal Agricultural Society of Eng.*

London, in treating of the Raspberry, says: "The Syrup is next to the strawberry in dissolving the tartar of the teeth, and as like that fruit, it does not undergo the acetous fermentation in the stomach; they are therefore recommended to rheumatic and gouty patients." The raspberry is also useful in the confectionary department, forming an excellent fruit for tarts, jams, and sweetmeats, and when properly prepared as a syrup, and diluted, makes a delicious and refreshing beverage, very cooling and safe in fevers.

**Raspberry Syrup.**—To every quart of fruit, add a pound of sugar, and let it stand over night. In the morning boil and skim it for half an hour; then strain it through a flannel bag and pour into bottles, which must be carefully corked and sealed. To each bottle, add if you please a trifle of brandy, if the weather is so warm as to endanger its keeping.

The same recipe answers for *Hackberries*.

**Raspberry Jam.**—1 lb. Loaf Sugar or White Havant Sugar, to every pound of fruit—bruse them together in your preserving pan with a silver spoon and let them simmer gently for an hour. When cold, put them into glass or china jars, and lay over them a bit of paper saturated with brandy—then tie them up so as carefully to exclude the air. They will keep a year, and are better than if made after the old method, with the addition of currant jelly.

**Ginger Beer.**—One pint molasses and two spoonful ginger, put into a pail to be half filled with boiling water—when well stirred together, fill the pail with boiling water, leaving room for one pint of yeast, which must not be put in until lukewarm. Place it on a warm hearth for the night, and bottle it in the morning.

**Beer.** (from a Lady of Weatherfield, Conn.)—20 drops of the oil of spruce, 20 do. wintergreen, 20 do. Sassafras. Pour two quarts of boiling water upon the oils, then add eight quarts of cold water, one pint and a half of molasses, and a half pint of yeast. Let it stand two hours and then bottle it.

**Rennet or Fine Custards.**—Very simple, and prepared in five minutes. Cut a bit of Rennet about four inches square into strips, which put into a bottle filled with wine. It will be fit for use in two or three weeks. To make your custard, first warm and sweeten the milk, then stir into it a tea spoonful or table spoonful of the rennet wine, according to its strength, and pour immediately into a piddling dish, or cups, as you prefer—put away in a cool place for an hour, and grate nutmeg on them. The whey, of which you

can make enough, by the addition of extra wine when you prepare it, is a very nourishing drink for invalids.—*Agriculturist*.

**Tomato Catsup.**—To a gallon skinned tomatoes, 4 table spoonful salt, 4 do. black pepper, half a spoonful of p. ce. 8 red peppers, and spoonful mustard. All these ingredients must be ground fine and simmered slowly in sharp vinegar 3 or 4 hours. As much vinegar is to be used as to leave half a gallon of liquor when the process is over. Strain through a wire sieve and bottle, and seal from the air. This may be used in two weeks, but improved by age, and will keep several years.

**Dr. Rush's Cure** for persons who have drunk imprudently of cold water or any cold liquid when too much heated. Doses of liquid laudanum proportioned to the violence of the attack. From a tea spoonful to near a table spoonful has been given before relief has been obtained.

**The best and most simple recipe for preserving Eggs**—Pack them during the summer and fall for winter. Take a stone crock or firkin, and put in a layer of salt, half an inch deep, insert your eggs on the small end, and cover each layer of eggs with a layer of salt. If the eggs are fresh when packed, and put into a cool dry place, they will keep perfectly good until the following summer.

**Boil Salsify or Vegetable Oysters** till the skin will come off easily. When you have taken it off neatly, cut the roots into bits as long as an oyster; put into a deep vegetable dish a layer of crumbs of bread or crackers, a little salt and pepper and nutmeg and a covering of butter as thin as you can cut it; and a layer of oysters, till your dish is filled, having crumbs at top. Fill the dish with water and brown them handsomely. They can remain two hours in the oven without injury, or be eaten in half an hour. *ib.*

**Indian Meal Cakes.**—To three pints of indian meal a piece of butter as large as an egg, and a tea spoonful of salt. Put two tea spoonful of boiling water stir it in, then add three eggs, and milk to make it to the consistency of batter. Half a tea spoonful of saleratus.

**Whooping Cough.**—A tea spoonful of castor oil to a table spoonful of molasses; a tea spoonful of the mixture to be given whenever the cough is troublesome. It will afford relief at once, and in a few days it effects a cure.

The same remedy relieves the croup, however violent the attack.

**Tincture of Roses**—Take leaves of the common rose, (*centifolia*) place them, without pressing them, in a bottle, pour good spirits upon them, close the bottle, and let it stand until it is required for use. This tincture will keep for years, and yield a perfume little inferior to otto of roses. A few drops of it will suffice to impregnate the atmosphere of a room with a delicious odor. Common vinegar is greatly improved by a very small quantity being added to it.—[German paper.

#### TO CORRESPONDENTS.

*T C H* Subscriptions rec'd. We trust you will not despair so soon. Where you find persons who wish to commence with a particular number, and will not take it from the first, you may receive half the price for the remainder of the volume, when they get the later they will perhaps order the earlier numbers. You have a strong argument for the farmers to take an Agricultural paper, in the fearful calamity that is before them, from the Hessian Fly. If they hope to escape it, they must study the habits of the insect.

### CANADA FARMER.

June 19, 1847.

#### THE HESSIAN FLY.

This terrible destroyer has come upon us at last. We have just returned from a short tour of investigation in the townships of York, Vaughan, and Markham. We examined several wheatfields in each of these townships remarkable for the production of this grain, and in all of them with but one exception, in the first or second handful we pulled up, we discovered the larva or maggot of the Hessian Fly. In some stalks we found as many as ten, in different stages of development. The great part were of a pale white, with a green stripe through the middle of the body; a few had turned brown, having reached what is called the flax-seed state. They are found near the root, between the outside leaves and the body of the plant. In some cases there were so many imbedded in the stalk, that the sap could not circulate, and the plant was turning yellow and beginning to die. In a field belonging to Mr. Shepherd, and also in

one belonging to Mr. Davis, about nine miles north of this city, we found the maggot in the tallest and most vigorous looking plants, in the rankest spots in the field; but more frequently they were found in the small, weakly stalks which had the appearance of being winter-killed, though it is more likely they owed their sickly appearance to the presence of these insects. Nearer this city, some fields which two weeks since looked healthy, and promised an unusual crop, have turned of a pale yellow colour, the leaves look stiff and staring, and it is doubtful if the owners will get their seed, to say nothing of their bread. While the effects of these destructive insects had become so plain that some farmers in this vicinity were ploughing up their wheat in order to sow other grain, others a little farther north had not discovered them at all. We were informed that Mr. Snider, in the Township of York, was about to plough up ten acres of spring wheat, so completely had this dreadful devastator done its work. This circumstance proves that the egg has been deposited this spring, in the case of spring wheat at all events.

Though if it be true, as has been asserted by some who have studied the habits of this insect, that the worm or egg is deposited in the seed and not in the stalk, it is not necessary to suppose that the fly has been abroad this spring. If this theory were true in the negative as well as the positive part of the proposition, namely, that the egg is "not deposited in the stalk or culm," a protection against the ravages of the Hessian Fly might be found in a careful selection and preparation of seed. But we should like to know how it happens that it appears in wheatfields grown from seed produced on the same farm for years, where until now there were no signs of its presence? Does the fly penetrate the mow or stack, or does it find its way into the bin? We think not. Then it can only be in the field before the wheat is cut, that the seed is accessible to the fly, which must be furnished with an ovipositor that will penetrate the chaff and skin of the kernel, otherwise the egg would be destroyed. But it does not appear that the insect is so furnished, and therefore this supposition seems not well-founded. This theory, put forward by a Miss Morris, of Pennsylvania, and mentioned in the following article, is proved to be untrue by an abundance of evidence. The fly deposits its eggs upon the leaf, whether it does so in the seed or not, and therefore it will be impossible to get rid of it by anything we can do with respect to the seed merely.

Last year the grain worm or weevil injured the wheat in this district to a considerable extent, but nothing like what, we fear, may be expected from the Hessian Fly, that terror to the wheat grower, which this season, for the first time we believe in this part of the country, makes its most unwelcome appearance. One-third of the wheat crop in many places has been winter killed, and we have every reason to fear that another third will be destroyed by the fly; upon the remaining third we must subsist ourselves, and the thousands of emigrants who are coming among us, (for we are sending off every bushel we can spare of last year's crop) and after we have done this, where will the surplus be which we are to export to Great Britain? And if this same destroyer has passed over the wheatfields of the great West, what is to become of the starving millions of Europe? We fear the calamity is yet to come, and that we shall not long be suffered to occupy the position of mere spectators. A lady in this vicinity has just received a letter from two sons who are farming in the State of Illinois, and they write that the farmers in their neighbourhood are ploughing up their wheat and planting corn in its place, in consequence of the ravages of this insect. We have not yet observed statements of this kind in the papers from that quarter, and we hope it may not be general, (but see page 83.)

We publish the following article from "Johnson's Encyclopedia;" it contains the most recent information that we have met

with, and will, we doubt not, be read with great interest at this time. We should be glad if some of our subscribers, at a distance from Toronto, would make examinations in their respective townships in reference to this all-important subject, and send us the result for publication:—

"One of the most formidable enemies of the wheat crop in the United States, is the far famed *Hessian Fly*, a small gnat or midge, which naturalists have placed in the family of gall-gnats (*Cecidomyiidae*). The insects of this family are very numerous, and most of them in the maggot state live in galls, or unnatural enlargements of the stems, leaves, and buds of plants, caused by the punctures of the winged insects in laying their eggs. The following account of the Hessian fly, the dread of farmers wherever wheat is cultivated in North America is chiefly taken from Harris's *Report on Destructive Insects*, and Herrick's valuable paper upon this insect, published in *Silliman's American Journal of Science*, vol. 42. The brief history of the habits and transformations of the Hessian fly will be found to agree essentially with the excellent observations on this insect, written in 1797, by Dr. Isaac Chapman, and published in the *Memoirs of the Philadelphia Society for Promoting Agriculture*.

"The head and thorax of this fly are black. The hind-body is tawny, and covered with fine grayish hairs. The wings are blackish, but are more or less tinged with yellow at the base, where also they are very narrow; they are fringed with short hairs, and are rounded at the end. The body measures about one tenth of an inch in length, and the wings expand one quarter of an inch, or more. Two broods or generations are brought to maturity in the course of a year, and the flies appear in the spring and autumn, but rather earlier in the Southern or Middle States than in New England. The transformations of some in each brood appear to be retarded beyond the usual time, as is found to be the case with many other insects; so that the life of these individuals from the egg to the winged state, extends to a year or more in length, whereby the continuation of the species in after years is made more sure. It has frequently been asserted that the flies lay their eggs on the grain in the ear; but whether this be true or not, it is certain that they do lay their eggs on the young plants, and long before the grain is ripe; for many persons have witnessed and testified to this fact. In the New England States, winter wheat, as it is called, is usually sown about the 1st of September. Towards the end of this month, and in October, when the grain has sprouted, and begins to show a leaf or two, the flies appear in the fields, and having paired, begin to lay their eggs, in which business they are occupied for several weeks. The following interesting account of the manner in which this is done, was written by Mr. Edward Tighman, of Queen Ann county Maryland, and was published in the eighth volume of the *Cultivator*, in May, 1841. 'By the 2nd week of October, the first sown wheat being well up, and having generally put forth its second and third blades, I resorted to my field in a fine warm forenoon, to endeavour to satisfy myself by ocular demonstration whether the fly did deposit the egg on the blades of the growing plant. Selecting a favourable spot to make my observation, I placed myself in a reclining position in a furrow, and had been on the watch but a minute or two, before I discovered a number of small black flies alighting and sitting on the wheat plants around me, and presently one settled on the ridged surface of a blade of a plant completely within my reach and distinct observation. She immediately began depositing her eggs in the longitudinal cavity between the little ridges of the blade. I could distinctly see the eggs ejected from a kind of tube or sting. After she had deposited eight or ten eggs, I easily caught her upon the blade, and wrapped her up in a piece of paper. I then proceeded to take up the plant with as much as I conveniently could of the circumjacent earth, and wrapped it all securely in a piece of paper. After that I commenced my observations on the fly, caught several similarly occupied, and could see the eggs uniformly placed in the longitudinal cavities of the blades of the wheat; their appearance being that of minute, reddish specks. My own mind being thus completely and fully satisfied as to the mode in which the egg was deposited, I proceeded to my dwelling and put the plant with the eggs upon it in a large glass tumbler, adding a little water to the ear, and secured the vessel by covering it with paper, so that no insect could get access to the interior.—The paper was sufficiently perforated with pin-holes for the admission of air. The tumbler with its contents was daily watched by myself to discover the hatching of the eggs, about the middle of the fifteenth day from the deposit of the eggs, I was so fortunate as to discover a very small maggot or worm, of



a red fish cast, making its way with considerable activity down the blade, and saw it till it disappeared between the blade and stem of the plant. This I have no doubt, was the produce of one of the eggs, and would, I presume, have hatched much sooner, had the plant remained in the field. It was my intention to have carried on the experiment, by endeavouring to hatch out the insect from the flax seed state into the perfect fly again; but being called from home, the plant was suffered to perish. The fly that I caught on the blade of the wheat, as above stated, I enclosed in a letter to John S. Skinner the editor of the *American Farmer*, of Baltimore, who pronounced it to be a genuine Hessian fly, and identical in appearance with others recently received from Virginia.

Dr. Chapman agrees with the writer, in saying that the Hessian fly lays her eggs in the small creases of the young leaves of the wheat. Mr. Havens, in an article on this insect, which will again be referred to, states, that the fly lays her eggs on the leaves. In the fortieth number of *The Connecticut Farmer's Gazette*, Mr. Herrick says, 'I have repeatedly both in autumn and spring, seen the Hessian fly in the act of depositing eggs on wheat, and have always found that she selects for this purpose the leaves of the young plant. The eggs are laid in various numbers on the upper surface of the strap-shaped portion (or blade) of the leaf.' His remarks in Professor Silliman's Journal are to the same effect. Other authorities on this point might be mentioned; but the foregoing are sufficient, in my opinion, to establish the fact, that the Hessian fly lays her eggs on the leaves of wheat soon after the plants are up. 'The number on a single leaf' says Mr. Herrick 'is often twenty or thirty, and sometimes much greater. In these cases many of the larvae must perish. The eggs are about the fifth of an inch long, and four thousandths of an inch in diameter, cylindrical translucent, and of a pale red colour.' Mr. Tighman was correct in supposing that the eggs would hatch in less than fifteen days, under favourable circumstances, for, if the weather be warm, they commonly hatch in four days after they are laid. The maggots, when they first come out of the shells, are of a pale red colour. Forthwith they crawl down the leaf, and work their way between it and the main stalk, passing downwards till they come to a joint, just above which they remain a little below the surface of the ground, with the head towards the root of the plant. Having thus fixed themselves upon the stalk, they become stationary, and never move from the place till their transformations are completed. They do not eat the stalk, neither do they penetrate within it, as some persons have supposed, but they lie lengthwise upon its surface, covered by the lower part of the leaves, and are nourished wholly by the sap, which they appear to take by suction. They soon lose their reddish colour, turn pale, and will be found to be clouded with whitish spots; and through their transparent skins a greenish stripe may be seen in the middle of their bodies. As they increase in size, and grow plump and firm, they become imbedded in the side of the stem, by the pressure of their bodies upon the growing plant. One maggot thus placed seldom destroys a plant; but when two or three are fixed in this manner around the stem, they weaken and impoverish the plant, and cause it to fall down, or to wither and die. They usually come to their full size in five or six weeks, and then measure about three-twentieths of an inch in length. Their skin now gradually hardens, becomes brownish, and soon changes to a bright chestnut colour. This change usually happens about the first of December, when the insect may be said to enter on the pupa state, for after this time it takes no more nourishment. Mr. Herrick informs me, that the brown and leathery skin, within which the maggot has changed to a pupa or chrysalis, is long, egg-shaped, smooth and marked with eleven transverse lines, and measures one-eighth of an inch in length. In this form it has been commonly likened to a flax-seed. It appears then from the remarks of Dr. Chapman, Mr. Herrick, and other careful observers, that the maggots of the Hessian fly do not cast off their skins in order to become pupae, wherein they differ from the larvae of most other gnats, and agree with those of common flies; neither do they spin cocoons, as some of the Cecidomyiids are supposed to do. Mr. Herrick, in one of his letters, observes, that 'the pupa gradually cleaves from the dried skin of the larva, and, in the course of two or three weeks is wholly detached from it. Still enclosed within this skin, which thus becomes a kind of cocoon or shell for the pupa, it remains throughout the winter, safely lodged in its bed on the side of the stem, near the root of the plant, and protected from the cold by the dead leaves. Towards the end of April and in the forepart of May, or as soon as the weather becomes warm enough in the spring, the insects are transformed into flies. They make their escape

from their winter quarters by breaking through one end of their shells and the remains of the leaves around them.

'Very soon after the flies come forth in the spring, they are prepared to lay their eggs on the leaves of the wheat sown in the autumn before, and also on the spring-sown wheat, that begins, at this time, to appear above the surface of the ground. They continue to come forth and lay their eggs for the space of three weeks, after which they entirely disappear from the fields. The maggots hatched from these eggs pass along the stems of the wheat, nearly to the roots, become stationary, and turn to pupae in June or July. In this state they are found at the time of harvest, and when the grain is gathered, they remain in the stubble in the fields. To this, however, as Mr. Haven remarks, there are some exceptions; for a few of the insects do not pass so far down the side of the stems as to be out of the way of the sickle when the grain is reaped, and consequently will be gathered and carried away with the straw. Most of them are transformed to flies in the autumn, but others remain unchanged in the stubble or straw till next spring. Hereby, says Mr. Havens, 'it appears evident, that they may be removed from their natural situation in the field, and be kept alive long enough to be carried across the Atlantic; from which circumstances it is possible that they might have been imported in straw from a foreign country. In the winged state, these flies, or more properly gnats, are very active, and, though very small and seemingly feeble, are able to fly to a considerable distance in search of fields of young grain.— Their principal migrations take place in August and September in the Middle States, where they undergo their final transformations earlier than in New England. There, too, they sometimes take wing in immense swarms, and, being probably aided by the wind, are not stopped in their course either by mountains or rivers. On their first appearance in Pennsylvania, they were seen to pass the Delaware like a cloud. Being attracted by light, they have been known during the wheat harvest, to enter houses in the evening in such numbers as seriously to annoy the inhabitants.

'Various means have been recommended for preventing or lessening the ravages of the Hessian fly; but they have hitherto failed, either because they have not been adapted to the end in view, or because they have not been universally adopted; and it appears doubtful whether any of them will ever entirely exterminate the insect. It is stated in the before-mentioned report to 'the Philosophical Society,' that Miss Morris advises obtaining 'fresh seed from localities in which the fly has not made its appearance,' and that 'by this means the crop of the following year will be uninjured; but in order to avoid the introduction of straggling insects of the kind from adjacent fields, it is requisite that a whole neighbourhood should persevere in this precaution for two or more years in succession.'—Harris.

It seems to be generally admitted that the variety of wheat called *Mediterranean*, introduced a few years since into the United States where it is now extensively cultivated, resists the attacks of the Hessian fly. Hence it may be sown very early in the fall, long before it would be safe to sow the common varieties, by which another great advantage is gained, in its escaping the rust and mildew so apt to affect crops which are backward in the time of ripening."

#### TO DRY COWS OF THEIR MILK.

In looking over a file of the *Dublin Farmer's Gazette*, we met with the following recipe, which may sometimes prove useful. A case occurred the other day, in which we would have tested its efficacy ourselves, had we been aware of its existence. It is stated that in using the following it is not necessary to have recourse to bleeding or purging:—  
"Let the cows be milked dry, then take four ounces of oil tallow, two ounces beeswax, half a pint of vinegar, six ounces spirits of turpentine, and half a pint of tar; boil these together for 15 minutes over a slow fire, let the mixture cool, then rub the udder and milk veins of the cow with it, and she will become dry in three days. There's no restriction of food, and the cows may be allowed to eat anything they choose. The above has never been known to fail, and the quantity is sufficient for six cows."

#### SYSTEMATIC FARMING.

It is the object of systematic farming to accomplish the greatest results by the smallest expenditure of force or money; and the differences between the force expended and

the result obtained being a constant measure of the gain acquired, it ought ever to be the sole end and aim of the farmer to produce effects proportional to the means employed. It must not, however, be supposed that a saving of labour is equivalent to a saving of money. So far from this being the case, the very opposite is found true in practice, viz.—that the profit is more dependant upon the amount of properly directed labour bestowed, than it is upon the comparatively trifling saving effected by withholding what is absolutely necessary for bringing the soil to its highest possible pitch of fertility. It is quite evident that a maximum result can never be obtained in any case, where farming is conducted in a haphazard manner, subject to no rules either of experience or science; there must be an adaptation of means to an end, otherwise disappointment and loss are sure to follow. On every properly conducted farm we invariably find, that some system or other has been adopted suited to the nature of the soil and climate, and which reflective experience and sound principles of science have pointed out as the one most likely to produce the greatest effects that the causes set in operation are capable of. The first step towards systematic farming is, the adoption of such an alternation of crops as is suited to the physical condition and chemical properties of the soil, and which will develop its energies without destroying its fertility. Very different rotations must be adopted in a country where its geological formation is characterised by dissimilarity; yet, notwithstanding this difference, there is one common object that must be kept in view by all in the selection of any particular mode of cropping, viz. to bring the soil into a condition in which it will produce the various crops, whether grain, grass, or roots, which may be necessary and profitable to raise. The following remarks from an Irish agricultural paper of high standing, are in most respects as applicable to this country as to Ireland:—

"The farmer, on a light dry soil, experiences no difficulty in growing potatoes and turnips, but he is very often disappointed in his wheat crop; on the other hand, on a heavy retentive clay soil, he succeeds in wheat and fails in green crops. It was thought at one time impossible to remove or alter these physical conditions, so characteristic of light and heavy soils. yet the progress of enlightened agriculture has effected an approximation to a common condition, in which the one is capable of producing fine crops of wheat, and the other equally good crops of turnips; and this has been effected by means of two systems peculiar to the farming of the present day, namely, sheep-folding on light soils, and thorough-draining and subsoiling on heavy clays. In the one case it was necessary to consolidate the soil, in the other to loosen it: sheep-folding has effected the one, and the Denaston system the other.

"These improvements have led to the establishment of a more uniform system of farming, and one under which a rapid increase of produce, instead of being detrimental, has proved highly conducive to the fertility of the soil. To carry on a regular system which will embrace within it every department of farming, it is necessary to have a due proportion of the different cereals, leguminosae, and also green crops, such as turnips, potatoes, mangel-wurzel, and carrots; the two former supplying dry litter and fodder, while the others yield saccharine, amyloseous and albuminous food for fattening beasts and milch cows. The excrement of these animals returns to the soil in an altered and prepared form, nearly the whole constituents of the preceding crop, thus furnishing to a new one materials out of which it may be re-produced; the only loss sustained being those portions carried off the soil in the grain, fat cattle, and other commodities sold; these however, can be replaced, either by manures or the extra food bought in. In a system of this kind, the great matter is to have the stock of beasts kept on the farm, in a due proportion to the food upon which they are to be fed; for whenever that food falls under what is requisite for keeping those animals in a healthy growing condition, a loss is sustained equal to twice the amount of the food that would have been necessary for a full supply.

"In those parts of the country where farming has been reduced to a system, the whole operations are necessarily carried on much more expeditiously and cheaply than others where no plan has been organized, and where it is a matter of chance more than rule what operations should succeed each

other. When all the parts of farm work are properly apportioned, and each man knows what he has to do, and expected to perform, the work goes on with the regularity of a machine, time is economized, and the work is executed in a proper manner. Again, it is a matter of some moment to a farmer, to have a considerable variety of crops growing on his farm, because by being wholly dependant upon one particular crop the risk of losing is very much increased. Many extensive potato and wheat growers have been ruined by failures of these crops: [The truth of this remark, made two years ago, has been illustrated with awful force in the distress of millions, and the actual death of more than fifty thousand of the inhabitants of that unfortunate country. Let us take warning.—The farmers of Canada are directing their attention too much to the production of one crop, wheat. A combination or coincidence of such accidents as a bad winter, the Hessian Fly, the grain worm or weevil, rust, and an influx of 200,000 starving emigrants, may teach us too, a fearful lesson.] besides, the constant cultivation of any particular crops to the exclusion of all others, necessarily exhausts the soil and impairs its powers of production.

"Another point worthy of notice in systematic farming is, the absence of all useless fences, wide ditches, and unnecessary open or cleavage furrows. When a good farmer gets possession of one of these patch-work farms, his first employment is to root up all these unseemly crooked, and worse than useless fences, and to lay out the land in neat suitable-sized fields, having as few nooks and corners in them as possible, so that the plough may have access to every portion of them: when this has been accomplished systematic farming may be said to have commenced. The loss sustained by useless fences and ditches has been made a matter of calculation in various parts of England; and a writer, Mr. Grant, in the last number of the *Journal of the Royal Agricultural Society of England*, has made the following calculations of the ground occupied by hedges in ten parishes in different counties in England:—

"The result of the examination of ten parishes, containing 36,976 acres, being an average size of about 3,700 acres, is, that there are 1651 miles of hedge: about half as long again as the famous wall of China; or sufficient to hedge round the whole of England with an immense bank of earth, and occupying 2,642 acres; being 1-7th per cent, or one acre in 14."

#### PULVERIZING THE SOIL.

To demonstrate that dews moisten the land when fine, dig a hole in the hard dry ground, in the driest weather, as deep as the plough ought to reach; beat the earth very fine, and fill the hole therewith; and after a few nights' dews you will find the earth become moist at the bottom, and the hard ground all round will become dry. Till a field in lands make one land very fine by frequent deep ploughing, and let another be rough by insufficient tillage alternately; then plough the whole field crosswise in the driest weather, which has continued long, and you will perceive, by the colour of the earth, that every fine land will be turned up moist, but every rough land will be dry as powder from top to bottom. In the driest weather, good hoeing procures moisture to roots; though the ignorant and incurious fancy it lets in the drought, and therefore are afraid to hoe their plants at such times.

There is yet one more benefit hoeing gives to plants which by no art can possibly be given to animals; for all that can be done in feeding an animal is, to give it sufficient food at the time it has occasion for it; if you give an animal any more, it is to no manner of purpose, unless you could give it more mouths, which is impossible. but, in hoeing a plant, the additional nourishment thereby given enables it to send out innumerable additional fibres and roots; so that hoeing, by the new pasture it raises, furnishes both food and mouths to plants.—[Tull.

*Britannia Wars* should be first rubbed with a woollen cloth and sweet oil; then washed in water and suds, and rubbed with soft leather and whiting. Thus treated, it will retain its beauty to the last.

Tar for greasing waggons, we think an absurd article. In the hottest weather it soon gums up and becomes adhesive, and in cold weather is always so. Wherever iron axle-trees are used, black lead mixed with grease is best.—or Flow mixed with Lard.

## Civil and Social Department.

## WHAT THE FARMERS EXPECT FROM PARLIAMENT.

Nay, start not, gentle reader, we are not about to read you a homily on party politics. The Parliament have a duty to perform, and to this duty involving as it does the substantial interests of the country, we shall refer without crossing the path of any man's political prejudices. The measures most required, have been rendered necessary by the recent movements in commercial legislation in England, by which the commercial relations between us and the mother country have been entirely changed. We must take steps to prevent our suffering by a movement which we did not originate and could not have controlled. Whether the sweeping changes that have been effected by Peel's commercial legislation, were the offspring of a physical necessity or not, it would be a waste of time to endeavour to determine. It is enough for us that they have been made, that we cannot unmake them, and that our interests have been affected, or our commercial position altered thereby. England has hitherto protected our grain, or in other words, admitted it into her markets on more easy terms than the products of Russia or the United States, or any other foreign country. And we in return protected her manufactures, that is we admitted them on more easy terms than the manufactures of France or the United States. To compare the results of these reciprocal acts of protection, or whatever else they may be called, would require a statistical calculation, which, for want of the necessary materials, it would be difficult to make, and which after all, would be rather curious than useful. It would be retrospective: an inquiry into circumstances which have ceased to exist. We must gain a thorough knowledge of our present position, to enable us to meet the necessities of the future. England has withdrawn her protection, and we shall hereafter have no advantages in her markets over the wheat grower of any other country. Whatever the Russian or the American can afford to sell his wheat for in Liverpool and London, that must we be content to receive for ours. We should have reason to complain, if England in taking from us a specific commercial advantage, required us to continue to give her a special privilege. Such want of reciprocity would be manifestly unjust. But she desires to take no advantage of us in this respect. She has given us as a matter of undoubted right, and without solicitation on our part, the power to pass a law to enable us to purchase our manufactures in any market where we can buy them cheapest. The duty of our Legislature, under these circumstances, is clear. There are many articles in use in almost every family, such as cotton, woollen and linen manufactures, which on being imported into this Province pay a greater duty by 7 per cent, if the produce of foreign countries, than those which are the produce of English labour. If a farmer wants to buy any one of these articles, he must pay the augmented price for it. These are called discriminating or differential duties, because they discriminate or make a distinction between goods produced in foreign countries, that is out of England, and those produced in England. Now it needs no argument to prove that all discriminating duties add to the cost of the article just as much as the duty amounts to; whether it be ten or 15 per cent.

It is the interest of Canada to abolish these differential duties, and this the country expects Parliament will do before the present session closes. A measure having in view this object has indeed been promised in the royal speech. A duty for the purpose of creating a revenue will continue to be levied on goods imported in the Province; but it will be placed equally upon all articles, without reference to the country in which they have been produced. This is what Cobden understands, and what the now extinct Anti-Corn Law League understood by free trade. But there are others who meddle in their idea

of free trade the entire abolition of customs duties and custom houses. When these are abolished, some other mode of taxation must be resorted to; for in every country it is necessary to raise a revenue by which to carry on the government. The only questions that arise are, by what means can the necessary revenue be raised without injustice to any class of the community; what mode of taxation is attended with the least expense of collection; and if the best mode of taxation be determined upon, have the people no prejudices that will be a bar, for some time, at least, against the application of that mode? If customs duties are abolished, direct taxation must be substituted in their place. But if it could be proved that this mode of taxation would be attended with the least expense of collection, there is a prejudice in the minds of the people, especially in Lower Canada, against its adoption, which would require constant exertion for several years to eradicate. It is not expected that anything of this kind will now be attempted. Our present difficulty will be got over by the abolition of all differential duties. If this be neglected or prevented by faction, the interests of the country will suffer severely. It is the duty of every member of the legislature to support a measure having in view the accomplishment of this object.

There is a general feeling throughout the whole country against the granting of large tracts of lands to companies of any description, under any pretence whatever. The public lands are merely held in trust for the people; and if there be a case in which the whole people should be consulted, it is on the proposition to make grants of public lands. If it be desirable to facilitate the settlement of the waste lands of the crown, why not throw them open on terms that will attract the attention of individuals, not of companies, who will become actual settlers? This would work out the improvement of the country, and people it with a happy and contented, because industrious and thriving, population. It is not within our province, but belongs to the statesman, to say on what terms and in what manner this shall be done, and how the revenue arising therefrom can be best made available for the advancement of the real interests of the country: our duty as the conductors of an agricultural journal, begins and ends with giving expression to the public opinion in the country, that the system of granting public lands by wholesale to companies should be discountenanced by Parliament. This opinion seems to be intimately associated with a wholesome fear of the injurious effects of landed monopolies. It is generally believed, and we think not without reason, that land companies retard rather than facilitate the settlement of the country, by enhancing the price to actual settlers and putting the profits into the pockets of speculators.

So far as the question of Navigation Laws is understood, their repeal is very generally desired. And it is natural that it should be so, for every penny which these restrictions imposed by the Navigation Laws enhance the price of freight or produce, is so much taken out of the farmer's pocket. What is the nature of the instructions which the provincial government have received on the subject, has not yet been developed, and we can have no means of judging. If Parliament have the power, it will best serve the public interest by removing every restriction to the free navigation of the St. Lawrence. If it has not the power to do so, we have strong hopes that an address from that body on the subject would be cheerfully responded to by her Majesty's government.

## EMIGRATION.

The emigration to Canada this year, is likely to swell to an extent altogether beyond the emigration of any previous year. It has been estimated that 200,000 persons will seek an asylum on the shores of Canada during the present year; and it has also been calculated by competent authority that of all the emigrants who come from Ireland, nearly 10 per

cent will die either on the passage or almost immediately after landing. And this prediction, awful as it seems, actual occurrences show the fearful possibility of being realized. At Grosse Isle, the quarantine station, where the sick are lauded instead of being allowed to come up to Quebec, a counterpart of the worst horrors that have afflicted Ireland may be seen, and on a scale immensely large. A Quebec paper of the 11th, states that during the previous week there had been 2000 cases of malignant disease; the horrors of which are greatly augmented by the inadequacy of the accommodation prepared for their reception. Up to the 11th inst. more than 1000 had been buried at Grosse Isle, many of them without coffins.

On the 3d June were buried 100.
5th do do 105.
6th do do 94.
7th do do 80.

A hundred funerals a day and many of the bodies thrown coffinless into the grave! This is awful. We may indeed consider ourselves fortunate if the seeds of disease that have been imported do not scatter themselves thro' the country, and carry off a large portion of the inhabitants. This, with the utmost care, it will be extremely difficult to prevent.

The law enacted by the Senate of the United States for repelling pauper emigration from their shores, will turn the current toward Canada; so that a greatly increased emigration is inevitable. Already has one vessel freighted with human beings been driven from the shores of republican America, and sought refuge in Nova Scotia. It is certain that Nova Scotia is not in a condition to receive any considerable number of emigrants who do not bring with them ample means to provide for their own necessities; it is indeed doubtful if they can, without danger of suffering starvation go there even with means. A despatch from the Governor to Earl Grey states that, from the failure of the crops during the two last seasons, Nova Scotia is not in a condition to receive emigrants who do not bring with them the means of supporting themselves for two years. The class of emigrants this year will consist mainly of persons whom poverty drives from their native shores. A voyage to Australia would require an outlay altogether beyond what their limited resources could afford; if indeed they had the inclination to sail 23,000 miles to Australia instead of 4000, to Canada. Kept from Australia by the very necessity that will drive them to America,—repelled from the United States, and with no chance of finding food for their labour in Nova Scotia, the great body of the emigrants, especially of the poor ones, will come to Canada. Previous to the sailing of the steamer before last, 40,000 emigrants had left England, Ireland and Scotland for Canada; and to what the whole number may swell it is impossible to say, but it will inevitably be very large. Such is the present appearance of things;—what the future will disclose it is easy to imagine as to character, but impossible to judge of as to extent.

How all these emigrants will be absorbed it is utterly impossible to tell; and at whose expense the unemployed will be fed may become a serious question. We shall not now attempt to give more than one suggestion, and that is that every one should be on his guard against deluding the emigrants, by holding out to them hopes of high wages. In no country is a crowded labour market compatible with high wages; and the intrinsic value of emigrant labour is much lessened by the labourers being necessarily unacquainted with the labour that has to be performed here, and especially on new farms.

## COMMON SCHOOLS.

We cannot at this time enter far either into the merits or defects of the present Common School Law. It is complained against by persons of all parties, and it is probable that it will undergo some alteration whatever may be the changes in the personnel of government. When the tuckering process begins, we intend to lend a little aid in the way of suggestion. It is discouraging and

humiliating to think, that our legislators are spending their time and our money (£1000 per day) in taunting each other with former delinquencies; one learned gentleman calling another learned gentleman a "rat," and a "dancing bear," and he in return suggesting the hippopotamus as a more appropriate animal, and telling his opponent that he was neither so handsome nor so clever as a horse! Shame on such vulgar, unprofitable, unparliamentary conduct. While the dusty records of the last century are ransacked for the precedent of a man being appointed Solicitor-General of Scotland at the age of twenty-one, the volumes which record the progress of intelligence among the people of other countries, and the causes, the "ways and means," and the consequences of that progress, are left unopened; the indicia of advancement in knowledge, civilization, and social happiness that is taking place all around us, are unobserved; the accumulation of ignorance from "home production," and by "importation," rapid though it be, yet not so fast as the necessities for its removal, awakens no attention, excites no alarm! The public lands may lie unproductive, the public schools may be neglected, the advantages of improvement and scientific discovery may be locked up from the masses; the clumsy machinery of an ill-contrived, defective law—the joint product of clerical corruption and legislative stupidity may continue to give dissatisfaction, but what of all that? A few lawyers—a few professed politicians—have secured their salaries; they have got a majority!

We tell our public men, we care not to what party they belong, that these things will not be tolerated. They must study the wants of the country, and must devote their energies and the means, which the people have placed at their disposal, to supply them.

The "one thing needful" in the School Law, which has heretofore been entirely overlooked, is the introduction of AGRICULTURE as a subject of study. In considering the amendments required, we hope our Legislators will look to the example of Scotland, Ireland, and the United States on this point. We shall give them some information in a future number.

## COPPER AND SILVER MINES OF LAKE SUPERIOR.

The first arrivals from Lake Superior have brought down a number of individuals who have during the winter been prosecuting their works in the search of mineral. All of our previous accounts are nothing in comparison to the accounts now given of the mineral wealth of that region. When we predicted a short time since that this region would be able to supply the world with copper at much less price than Cornwall, we had not anticipated there were large deposits of silver, rivaling the mines of Mexico.

We yesterday had the pleasure of seeing Mr. Thomas C. Childs, the agent of the British North American Mining Company, who is on his way to Montreal with several casks of mineral taken from the location known as the "Prince Location," and from the vein discovered by Col. Kinsie the last session, on Spar Island. It has been traced to the main shore, where the specimens now here were obtained. The mineral is a vein stone strongly charged with metallic silver. It is associated with calcareous spar, quartz, sulphate baryte and cloud or vein stone. The specimens of silver from the south shore are very rich, but not of the character of those found by Mr. Childs on the north shore. We have been informed by those who have seen and examined specimens from the celebrated mines of Durango and Chihuahua, in Mexico, that those obtained from Lake Superior have a very strong resemblance to them. All the indications in that country would lead us to believe there is mineral wealth beyond calculation almost; but at the same time it would not be amiss for those who are engaged in mining to remember that there is much uncertainty in mines.—[Det. Free Press.

MONTRÉAL BANK.—The following gentlemen have been elected Directors of the Montreal Commercial Bank, for the ensuing year:—Benjamin Ansell, Benjamin Brewster, William Connolly, John Dods, John Frothingham, Luther H. Holt, William Lyman, Joseph Ross, D. P. Ross, W. T. Whitehead, Joseph Vallee. Application will be made to the Legislature for an increase to the Capital Stock of the Bank to the sum of £200,000.

CONTENTMENT.

BY JOHN SWAIN.

Content be mine, though poor my lot
With wealthy ones compared;
Much richer blessings have I got
Than myriads ever shared;

I—like the hare—have many friends,
Unlike the hare's they're true;
And mercy on my soul descends
From Heaven like honey dew;

When did of peace the pleasant calm
And rude repining bleed?
Did murmuring ever bring a balm
A troublesome time to end?

Give me the skill to rhyme a song,
And sing it for a friend;
And hope to help the heart along
To a calm and peaceful end;

Literary Department.

GROWTH OF THE WEST.

The unexampled rapidity with which the
Western States of the American Union have
been peopled, is thus described by Mr. Anson
Burlingame at a meeting held at Boston a
few days ago:—

In times past you have stood too much
aloof from the people of that region. They
have not been unmindful of the fact, nor
backward in proclaiming the apparent neglect.
The West, heretofore, has suggested to your
minds only border strifes—lawless men—
Indian wrongs, and the fur trade, with all its
wild and stirring incidents.—You have never
contemplated it as a region of commerce and
the home of civilization; you have looked
upon it as a land of romance, and your interest
in its history declined with the destruction
of the fur trade, and with the going out
of the Indian's battle fires along the crystal
Lakes of the North; when, in fact, with
these events, its true and noble history began.
Then the pioneer went to war with the wild-
erness, and lo! the triumphs of the axe and
the plough. Your attention, until recently,
has not been turned towards the West. It is
true, a neighbour of yours may have gone
there, but as the mighty tide of emigration
has no reflux wave, you have scarcely
learned how he fared in that new and far off
land. Of the political importance of the
West, you have learned more. You have
felt it in Congress—there it has spoken its
manly eloquence, and sometimes seized, with
strong hand, the sceptre of power; there
have shone its bright stars—its Clays, Cuten-
denns, Corwens—its Bentons, its Allens, its
Marshalls, its Whitteseys, its Howards,
and its Ewings. These have spoken words
which have been felt in our country's des-
tiny. I say you cannot have been indifferent
to the political strength and influence of the
West; but have you, until quite lately, com-
prehended the vast commercial resources of
that region? Of these you are now com-
pelled to take notice. Every paper that
comes to us tells of the mighty energy of the
West. One speaks of a line of canal boats
fifty-three miles in length; another tells us
a ship has just left Chicago, spread its white
wings to the western breeze, and that it is to
find no rest for its keel until the flag of our
country shall wave in the port of a foreign
land; another still tells us that there are at
this moment ten millions of people in the
great valley of the Mississippi. How can it
be? we exclaim. Fifty-eight years ago the
first settler in Ohio, in the person of Dr. Cut-
ler, of Beverly, Mass., bade adieu to his
friends here, to go to the place upon which
is now built Marietta—a town which is en-
gaged largely in ship building, for the com-
merce of the ocean. Michigan, thirty-five
years ago, had scarcely an inhabitant. Now,
more than three hundred thousand warm
hearts are beating upon her soil, and her sons
count upon the profits of their ample fields,
in the year that is past, in eight millions of
bushels of wheat. Such has been the growth
of the whole West. A few years since, in a
birchen canoe, I was paddled all along the
shores of Wisconsin, from Chicago to Green
Bay—a distance of several hundred miles—
seeing scarcely a white man. Last year, it
was my good fortune to go along the same
shore, and over the same waters, and I pass-
ed the large towns of Sheboygan, Southport
and Racine; and when, far off on the waters

of Lake Michigan, I beheld the city of Mil-
waukee, looking like a sea sybil, with its
"towers of proud towers"—but I cannot de-
scribe the changes that has taken place on the
Lakes, in the brief time allow me. The
traveller may leave Buffalo to-day, in one of
the lake steamers, and in seventy-two hours
the keel of this noble vessel shall scrape the
golden sands of Illinois—nearly eleven hun-
dred miles to the Westward. His eye will
have gazed upon five of the States of this
Union, as well as upon the possessions of
Queen Victoria. In 1815 appeared the first
steamboat upon the Lakes; now there are
more than 100 of the largest class—and the
Griffin, of 70 tons, launched by the daring
La Salle, in 1769, has multiplied, until now
the Lakes are white with sails, and literally
murmur with the rush of keels. The com-
merce of the Lakes, at this time, may be
safely estimated worth 150 millions of dollars
per annum—requiring the constant employ-
ment of over three thousand sailors, as brave
as ever dwelt on the ocean, and who would
be as efficient if summoned to the gun deck.
The cities of Detroit and Buffalo have more
tons of shipping afloat than are owned in the
four planting States of North and South
Carolina, Georgia, and Alabama; and these
are but two of the seven cities along the
Lakes. It is estimated that there are in the
Western States over eight hundred and fifty
steamboats, and that 13,440 persons are en-
gaged in navigation. These are some of the
random statistics that occur to me; but we
must remember that the statistics of 1844
will not serve as a basis for calculations in
1847. The growth of that region far out-
runs the wildest imaginings of the Poet, who
has said—

"A thousand years scarce serve to form a State."
We beheld them in our day, leaping from
our Western forests into the bosom of this
Confederacy, almost before we can give them
"a habitation and a name." The North
Western States are peculiarly the children
of New England, in whom she ought to feel
an interest. Her blood and spirit are there,
and the principles of liberty she has so cher-
ished. Her son, Nathan Dane, of Beverly,
in his State, drew the celebrated Ordinance
of 1787, under which the Territory forming
those States was first organized under a Go-
vernment. By the terms of that Ordinance,
the vast territory between the Ohio, the
Lakes and the Mississippi, could not be di-
vided into more than five nor less than six
States—four have already been admitted into
the Union—Wisconsin alone remains a Ter-
ritory. Another feature of that Ordinance,
proclaiming its New England origin, was,
that it prohibited slavery forever from that
region. Another son of New England, no
less than the late Judge Story, drew the bill,
which three or four years since passed the
Congress, extending the maritime law over
the Lakes. The Ordinance well preparing
the way for that code, improved, it is true—
which, in other times, governed in their in-
tercourse the merchants of the cities along
the blue Mediterranean. I say we ought to
feel an interest in the West, a higher than
pecuniary interest. I know that Massachu-
setts is not unmindful of Western interests.
Her votes prove she has never, and I am
thankful for it, shown a disposition to with-
hold from the West its share of the common
fund, and I believe she is now willing to co-
operate with the West in the earnest advo-
cacy of such measures as shall secure to the
latter its long withheld rights.

DESCRIPTION OF THE CITY OF MEXICO.

The following description of the city of
Mexico from William's Universal Gazetteer,
will be peculiarly interesting at the present
moment. We are daily expecting to hear,
and the intelligence may probably reach us
before this sheet goes to press, of the capture
of the city by the American army:
The present city occupies only part of the
site of the ancient Mexican city of Tenochtit-
lan, which was founded, according to the
traditions of the natives, in 1331, or two cen-
turies before its conquest by Cortez. The
location is near the Lake Texcoco, the waters
of which, with the other lakes in the vicinity,
have been on the decrease for several cen-
turies. "Mexico is undoubtedly," says Hum-
boldt, "one of the finest cities ever built by
Europeans in either hemisphere. With the
exception of Petersburg, Berlin, Philadelphia,
and Westminster, there does not exist a city
of the same extent which can be compared to
the capital of New Spain for the uniform
level of the ground on which it stands, for the
regularity and breadth of the streets, and the
extent of the public places. The architecture
is generally of a very fine style, and there are
even edifices of a very beautiful structure.
Two sorts of hewn stone give to the Mexican
buildings an air of solidity, and sometimes of
magnificence. The balustrades and gates are
all of Biscay iron, ornamented with bronze;
and the houses instead of roofs, have terraces,

like those of Italy and other southern coun-
tries."
Many of the streets are nearly two miles
in length, perfectly level and straight, with
the ends terminating in a view of the moun-
tains that surround the valley. The houses
are in general of uniform height, most of them
having three stories, each from 15 to 20 feet
high. The fronts of most of the houses are
painted in different colors, viz: white, crim-
son, brown, or light green, and retain their
beauty for many years, owing to the dryness
of the atmosphere. The city is built in the
form of a square, of about four miles on a side.
The Plaza Mayor is one of the finest squares
to be seen in any city in the world. The east
side is occupied by the cathedral, a magnificent
building; the north by a splendid palace, for-
merly occupied by the viceroys; the south by
a fine row of houses, in the centre of which
is a palace, called the Casa del Estado, built
on the site of the palace of the Montezumas;
and on the west is a range of shops, public
offices, granaries, &c., with piazzas in front.
Near the suburbs, to the north, is the Alameda,
or great promenade.

The botanical garden is small, but rich in
rare and interesting productions. It is hand-
somerly laid out in the Spanish fashion, with
flagged walks, bordered with elegant large
pots of flowers. In the centre is a large stone
basin, supplied by a fountain with water.
The public buildings are very numerous.
A late traveller counted 105 cupolas, spires
and domes, within the city, and there are 56
churches, besides the cathedral, 38 convents,
namely:—23 of monks and 15 of nuns. The
Franciscan convent is a large establishment,
with an income of about \$90,000, arising
principally from alms. The hospital is well
supported, and the mint is the most extensive
establishment of the kind in the world. The
university, founded in 1551, and the public
library, are worthy of notice, as well as the
academy of painting and sculpture.

The dwelling-houses of the citizens, altho'
many of them are elegant, lofty, and spacious,
are not as well furnished as those of cities in
the United States. The city is supplied with
water by aqueducts; and the canal of Chalco,
which extends from the lake of that name to
the city, affords an avenue for conveying in
canoes, the produce of the surrounding coun-
try, and the fruits, flowers, and vegetables,
raised in the beautiful gardens in the vicinity,
to market. The remains of the celebrated
floating gardens, called Champas, are near the
lakes, and are now stationary, surrounded by
a broad ditch.

Mexico was formerly subject to inundations
from the lakes, to prevent which, a drain has
been cut through a gap in the mountains, 12
miles long and 300 feet wide, at great expense.
The climate is bland, and the atmosphere pure
and healthy. There are many pleasant rides
out of the city; among others, that to the vil-
lage of Tacubaya, four miles distant.

This city enjoys an extensive commerce,
which is carried on through the ports of Aca-
pulco, on the Pacific, and Vera Cruz, Alva-
rado, and Tampico, on the Atlantic Ocean.
Merchandise is transported on mules from
these seaports; and companies of traders with
the goods generally go armed to protect them-
selves from robbers, who occasionally frequent
the roads to the capital.

The people are much addicted to pleasure
and gambling. The ladies, when they are
seen in the streets, are dressed in black, ex-
cept on holidays and other public occasions,
when their dresses are gay. They generally
are in carriages when they appear in public,
and but seldom on horseback. The dress of
the higher classes of the men is similar to
those of Spain. Long cloaks are worn in the
streets, and light jackets in the houses. Amer-
ican, English and French manufactures of
cotton and wool, and German linens, are
much worn. English earthenware, beer and
porter, are also in great request. Some brew-
eries have, however, been established in the
city. Beggars, called leperos, similar to the
lazzaroni of Naples, are very numerous in this
city; they are said to amount to 20,000. The
ancient city of Mexico, or Tenochtitlan, was
taken by Cortez, in 1521, after a siege of 75
days, when a great slaughter of inhabitants
took place. The houses were razed to the
ground, and the present city built on the ruins.
Lat. 19 26 N, lon 103 45 W.

THE WAR BETWEEN THE UNITED STATES AND MEXICO.

We take the following article from an
American paper:—
We ask the serious attention of the public
to the following estimate of the losses
of the war with Mexico, up to the first of
May. It presents an appalling picture, and
and proceeding from a source not unfriendly
to the administration may be regarded as cor-
rect, and without any exaggeration. And
what have we gained, or are likely to gain, by

all this outpouring of blood and treasure?
The writer for the Herald, from whose
communication we have taken the estimate
says the gains have yet to be designated, esti-
mated and acquired. Mexico of the two, we
suspect, though she may lose half her terri-
tory, will be the greater gainer. Be-
yond all contradiction or cavil, this was
brought upon the country by the mismanage-
ment of Mr. Polk's administration, arising
from inexperience, weakness or corruption.
Mr. Benton, whose authority will not be
questioned by the locofocos, charges it upon
President Polk, by implication, and intimates
that ordinary wisdom in conducting
negotiations with Mexico would have averted
a rupture with a sister Republic. The corres-
pondent of the Herald says:

The American forces occupy territories of
the enemy comprehending an area of 800,000
square miles, equal to fifteen such divisions of
territory as the State of New York.

The active American force in the field,
over this vast expanse of territory, has not
exceeded at any time, a sum total of 30,000
men. By a rough estimate, the losses of the
Americans in the numerous fights and skir-
mishes have been, perhaps, not less than the
following:

Table with 2 columns: Location/Action and Casualties. Includes rows for operations around Matamoras, Monterey, Buena Vista, incidental skirmishing, operations in New Mexico, California, Vera Cruz & neighbourhood, Alvarado in the attack of Com. Connor, attack of Cape Hunt's, Cerro Gordo, Total killed & won'd, Died of the climate, Total.

—comprehending the killed and wounded,
and the dead from disease, on the side of the
Americans. On the other hand, we think
we may safely set down the Mexican loss at
three to one in killed and wounded, as the
average, in all the battles and skirmishes with
our troops in every quarter; so that their
aggregate loss may be reasonably set down at
10,000 men, as an offset to the 3,010 of the
Americans in the foregoing table.

In the gulf, the United States have lost two
vessels of war, and perhaps, not less than 50
transport vessels of all kinds, from the north-
ers, and the coral reefs, equivalent to a loss of
\$2,000,000.

The aggregate expenses of the war up to
this date, regular and irregular, ordinary and
extraordinary, with a valuation upon every
thing expended or lost, except upon the brave
men who have died in the enemy's country,
or from wounds or disabilities incurred in the
service; will cover an item of \$50,000,000—
of which we may set down \$5,000,000 to ex-
penditures in the enemy's country, and for
purchases of mules, provisions &c., and hire
of labourers and mule drivers of the Mexi-
cans, equal, let us assume to the citizens of
Mexico disposing of those articles, to a clear
profit of three millions, deducting first cost
and the portion disposed of under the law of
contributions.

COSTUMES OF EUROPEAN PEASANTRY.

We were particularly struck, writes the Eu-
ropean correspondent of the Charleston
News, in our rapid journey from Rome, with
that mark of the fixed and invariable condition
of a large portion of Europe, found in the
local costumes of the peasantry.—They never
change. The people of adjoining provinces
often appear ridiculous to each other, and the
rest of the world, yet the fantastic ornaments
descend from parents to children as if they
were among the first-necessaries of life. The
Piedmontese women wear an extraordinary
cap of lace and frills standing out like a fan,
and looks as if some strange bird had alighted
upon the shoulders. The peasantry of Mo-
dena deck themselves with a miniature straw
hat, about half as large as the head, and full
of plumes and coloured ribbons, which they
place upon the crown of the head. The
Tuscans, on the other extreme, wear a hat
nearly as large as an umbrella. It is made
of the beautiful Tuscan straw, and weaving
in the breeze above the fresh and agreeable
countenances of the inhabitants, is far from
being ungraceful. The most graceful cos-
tume prevails in Genoa. Females never ap-
pear in the street in that city without a light
scarf of white gauze thrown over the head,
and falling gracefully over the shoulders.



ECONOMY OF CANDLES.—If you are without a rushlight, and would burn a candle all night, unless you use the following precaution, it is ten to one that an ordinary candle will gutter away in an hour or two. Sometimes to the endangering of the house.—This may be avoided by placing as much common salt, finely powdered as will reach from the tallow to the bottom of the black part of the wick of a partly burnt candle, when, if the same be lit, it will burn very slowly, yielding a sufficient light for a bed-chamber; the salt will gradually sink as the tallow is consumed, the melted tallow being drawn through the salt and consumed in the wick.—[The Economist

AN APPEAL TO SELF-INTEREST.—Rightly understood, it is the interest of every man, woman, and child, of every rank and station, to secure good sanitary regulations in large towns. It is the interest of the rich, who are constantly falling victims to diseases bred in the filthy and neglected habitations of the poor, it is the interest of the rate payer who is heavily taxed by unwholesome dwellings and workshops, it is the interest of the charitable, who feel that all they can give is miserably inadequate even to the palliation of evils which might have been prevented, it is the interest of the landlord whose rent is always better paid by a healthy than by an unhealthy tenantry, and whose property is raised in value by every structural arrangement which conduces to health; it is the interest, above all, of the labouring poor, to whom health is but a synonyme for wealth; and sickness and premature death, for poverty, embarrassment, and destitution.—Address on the necessity of a sound and comprehensive measure of Sanitary Reform.

DOMESTIC EXPLORING EXPEDITION.—The St. Louis Union of the 21st says:—

DRS OWEN AND NORWOOD, with several gentlemen attached to the expedition, are now here, on their way to the unexplored district near Lake Superior and the sources of the Mississippi. They are to make the necessary geological and other scientific explorations of the Government lands there, prior to bringing them into market. The region is said to abound in copper and other minerals. They will be absent about five months on this scientific tour, and we shall look with interest to the result of their researches and observations in that valuable district. The previous reports of Dr Owen have commanded profound attention among learned men, and been of great practical benefit to the Government. Dr Norwood, who is associated with him in this scientific tour, is a gentleman well qualified for the task. A party of surveyors will be sent to run the principal meridian from the Illinois boundary to Lake Superior, also the township and subdivision lines in a part of that district.

EXPEDIENT TO NEUTRALIZE THE FORCE OF THE WIND.—The canoe was carried down the stream by the force of the current; but in the afternoon, and during the greater part of the night, the sea breeze blew so strong as to impede our progress. The boatmen, however, adopted a plan to overcome this which I have never seen elsewhere, nor even heard of, and I will therefore explain it in a few words. Landing at a place where trees grew in abundance, the men set to work and cut off a considerable quantity of branches, which were tied tightly together with cords. One end of a long rope was made fast round its middle, while the other end was secured to the canoe. They then steered for a part of the river where the current was strong and threw the bundle overboard, which being heavy, from its green state, floated just below the surface of the water; and in this manner, being entirely out of the influence of the wind, it received the whole force of the current; by which means the canoe was dragged down at a rate little inferior to that by which we descended during the calm of the day.—[Gardner's Travels in Brazil.

RAISING POTATOES FROM SEED.

In April the seed should be sown on a light hot-bed, on the surface, well raked in and patted with a spade, giving occasional light waterings. When the plants appear, admit plenty of air, and in order to promote their growth in the early part of the summer (for the size of the tubers will greatly depend on this) in May or June they should be transplanted on a warm border, in rows, 18 inches apart, and 9 inches in the rows, and watered frequently in dry weather, and when growing not to be moulded. But in the event of extreme drought, all those efforts may prove fruitless; therefore we recommend our general or usual mode of culture, viz.—Let a warm situation be chosen, not too dry, and sow the seed in very shallow drills, 18 inches apart. When the plants have attained proper strength they should be thinned and transplanted as before directed, leaving the rest to their fate (these probably will do the best, but will not produce the largest tubers). Under this mode of treatment, plants may not be expected to appear, unless through artificial waterings, till a dripping time, though it should be the end of the summer, when the seed will vegetate, and grow, as it were, spontaneously, without any trouble whatever.—[Hardy and Son, seed-growers, Maldou, Essex.

Scientific.

CATECHISM OF AGRICULTURAL CHEMISTRY AND GEOLOGY.

We shall continue our extracts on Agricultural Chemistry under our scientific head. We omit a few questions which in Mr. Johnson's "Catechism" follow those given in our last number, as they are nearly a repetition of what had been answered before. He states that all the substances mentioned are found in the inorganic (that part which does not burn away—the ash—see last No.) part of plants, in some, more than in others, thus in 100 lbs. of hay, there may be 9 or 10 lbs. ash, while in 100 lbs. of wheat there will be but 2 lbs. of ash. The ash of different plants contains these substances in different proportions.

II.—Of the Organic Food of Plants.

Q. Do plants require food as animals do?
A. Yes, all plants require constant supplies of food in order that they may live and grow.
Q. Where do plants obtain their food?
A. They obtain it partly from the air and partly from the soil.
Q. How do they take in their food?
A. They take it in by their leaves from the air, and by their roots from the soil.
Q. Do plants require two distinct kinds of food?
A. Yes, they require organic food to support their organic part, and inorganic food to support their inorganic part.

Q. Whence do they obtain their organic food?
A. They obtain their organic food partly from the air and partly from the soil.
Q. Whence do they obtain their inorganic food?
A. They obtain their inorganic food wholly from the soil in which they grow.
Q. In what form do plants take in organic food from the air?
A. In the form chiefly of carbonic acid gas.

Q. What is carbonic acid gas?
A. It is a kind of air which has no colour, but has a peculiar smell. Burning bodies are extinguished in it, and animals die, and it is heavier than common air. It causes the boiling up of soda water, and the frothing of beer, and forms nearly half the weight of all limestone rocks.

[You may prepare carbonic acid gas, by pouring dilute muriatic acid, (spirit of salt,) upon bits of limestone, or of the common soda of the shops, in a tall covered glass.]

Q. Does carbonic acid gas form a large part of the atmospheric air?
A. No, the atmospheric air consists almost entirely of a mixture of oxygen and nitrogen gases. Five gallons of air contain about four of nitrogen and one of oxygen, but in 5000 gallons there are only 2 gallons of carbonic acid gas.

Q. Do plants drink in much carbonic acid from the air?
A. Yes, they drink in a very large quantity.

Q. How can plants drink in so large a quantity of this gas from the air, which contains so little?
A. They spread out their broad thin leaves in great numbers through the air, and thus are able to suck in the carbonic acid from a large quantity of air at the same time.

Q. How do they suck it in?
A. By means of a great number of very small openings or mouths which are spread every where, especially over the under surface of the leaf.

Q. Do the leaves suck in this carbonic acid at all times?
A. No, only during the day time. During the night they give off a quantity of carbonic acid.

Q. What does carbonic acid consist of?
A. Carbonic acid consists of carbon, or charcoal, and oxygen.

6 lbs. of carbon and 16 lbs. of oxygen form 22 lbs. of carbonic acid.

Q. How do you prove this?
A. By burning charcoal in oxygen gas, when carbonic acid gas will be formed.

[This experiment may be shown by introducing a piece of red hot charcoal into a bottle of oxygen gas until the charcoal is extinguished, when, upon putting a lighted taper into the bottle, you will find carbonic acid has been formed, for the taper will be extinguished.]

Q. Does the plant retain both the carbon and the oxygen contained in the carbonic acid that is absorbed by its leaves?
A. No, it retains only the carbon, giving off the oxygen again into the air.

Q. How do you show that the leaves give off this oxygen gas?
A. By putting a few green leaves under a tumbler or gas-receiver full of water, and setting them out in the sunshine, when small bubbles of oxygen gas will be seen to rise from the leaves, and to collect in the upper part of the tumbler.

Q. Do the leaves of plants drink in any thing else from the atmosphere?
A. Yes, they drink in watery vapour.

Q. What purpose does this vapour serve?
A. It serves in part to moisten the leaves and stems, and partly to form the substance of the plant itself.

Q. In what form do plants take in carbon from the soil?
A. In the form of carbonic acid, humic acid, and some other substances which exist in the black vegetable matter of the soil.

[To form humic acid you have only to dissolve a little common soda in water, boil the solution upon finely powdered peat or rich dark soil, pour off the solution when it has stood to settle, and add weak spirit of salt to it. Brown flocks will fall, which are humic acid. This humic acid consists of carbon and water only.]

Q. In what forms do plants derive nitrogen from the soil?
A. In the forms of ammonia and nitric acid.

For the Ladies.

THE LAST TEAR.

BY O. CARMICHAEL.

She had done weeping—but her eye-lash yet lay silken heavy on her bluish cheek; And on its fringe, a tear, like a lone star Shining upon the rich and byacinth skirts Of the western cloud that veils an April even. The veil rose up, and with it rose the star, Glistening above the gleam of tender blue, That widened as the showers clear off from heav'n. Her beauty woke—a sudden beam of soul Flash'd from her eye, and lit the vesal's cheek Into one bright crimson, and exhaled the tear. Brooklyn, L. I.

THE ATTENTIVE GALLANT.

The Baltimore Western Continent tells the following good one, combining gallantry and greenness:—

Some two weeks since a young gentleman from one of the Southern States came to Washington, to endeavour to obtain an appointment in one of the new regiments about being raised for Mexico. It was his first trip to the North, and having travelled straight through from Atlanta to Washington, without stopping on the road, he had better opportunity of feeling than seeing the effect produced by the change of climate. On the day after his arrival he was introduced by the member of this district to several young ladies, with one of whom it fell to his lot to walk from Gadsby's to the Capitol.

The lady was provided with a ponderous muff, now so fashionable an article of dress at the north. Our hero was in a dilemma—what to call it or for what purpose it was used, he did not know. But one thing he did know, and that was that it was anything but polite for a gentleman to allow a lady to bear such a burthen. He scrutinized it with much uneasiness for some time—he could not divine what it contained but he was perfectly familiar with the "kiver," and unable longer to restrain his gallantry, he extended his hands, saying:—

"Miss Julia, lend me to toast your bar-skin for you?"

"Thank you, sir—don't trouble yourself," replied Miss Julia, blushing very red.

"Oh, 'tain't no trouble in the least!" replied our hero, insisting on relieving her of her burthen.

The merry girl at last consented, rather than enter into so embarrassing an explanation; and taking the muff under one arm, our hero offered the other to his fair companion, with whom he marched boldly along the avenue to the Capitol, to the no small wonderment of the passing crowd.

It is needless to add that he soon discovered his mistake, or that he has from that hour held all ladies' muffs in utter abhorrence.

INTERESTING TO BACHELORS.

An English paper indulges in the following remarks in relation to certain members of the community. We recommend them to the serious consideration of all old bachelors.

"A man who passes through life without marrying, is like a fair mansion left by the builder unfinished. The half that is completed runs to decay from neglect, or becomes at best but a sorry tenement, wanting the addition of that which makes the whole useful. Your bachelor is only the moiety of a man; a sort of garnish for a dish; or a prologue to a play; a bow, without—the fiddle."

A young lady at school, engaged in the study of grammar, was asked if a kiss was a common or proper noun. After some hesitation, she replied, "it is both common and proper."

Scraps.

"Is smoking offensive to you?" said a landlord, as he took out his cigar to a family that had just moved into his house. "Not at all, Sir," said the female part of the household. "I am glad to hear it," said he, "for all the fire places here smoke so hot, that you will be bare before you have inhabited the premises six months."

"Those nations which have been most distinguished for their love of husbandry, whether of the garden or of the fields, have been the most prosperous."

A young lady lately observed, "When I go to the theatre, I am very careless of my dress, as the audience are too attentive to the play to observe my wardrobe, but when I go to church, I am very particular in my outward appearance, as most people go there to see how their neighbours dress and deport themselves."

Loves.—Love has made me like the sandal tree, that sheds sweetness on the axe that wounds it.

Two females had a set-to in the streets of Philadelphia, a few days since, and before they could be separated one had completely bitten off the nose and ear of the other.

A CONVENTION.—Why are we led to infer that David and Joshua were intemperate men? Because David when he went out to meet Goliath "on the field of honour," "took a sting;" and Joshua, previous to his attack on the walls of Jericho, "took a horn," and gave a "regular blotto out!"

News Department.

We have received an excellent communication from a "Scotchman" on the subject of Oilcake and other articles of export. We are sorry it did not come to hand in time for this number. We shall take great pleasure in laying it before our readers next number.

Arrival of the Cambria.

The Cambria brings accounts of a decline in the prices of grain; but it appears that the accounts at New York were extremely contradictory, and extensive dealers were afraid to act. It is highly probable that the circumstances which have caused a depression of prices will be of temporary duration; as much will depend upon the prospect of the coming harvest, especially in the great grain growing states of the American Union, from which accounts within the last few days are anything but favourable.

We learn from a gentleman who has arrived from Iowa, that in Michigan and Illinois nearly half the crop has been winter-killed. It will also be seen by extracts in another column that the wheat crop in the Western States is suffering severely from the ravages of a fly. So that from all the circumstances of the case, it is not likely that the present depression in prices will be anything but temporary.

THE FIRST OF THE FRANCO-AMERICAN LINE OF STEAMERS.

Decline in the Prices of Produce.—Improved condition of the Money Market.—Death of O'Connell.

NEW YORK MARKETS.

New York, Thursday, June 17, three o'clock, P.M.

On no occasion has there prevailed, on change here, more contradictory views than have been noticeable to-day. The advices of buyers differed so much, and, in fact, so directly contradictory were the impressions in anticipation of the foreign arrivals, that business seemed impossible. Sales were however made to a considerable extent, after much delay. Flour, Ohio and Michigan, brought \$7 75c a \$7 87½c, and finally, both rose to \$8. Wheat opened in the morning at \$1 62½c, subsequently brought \$1 70c. Corn brought 8½c a 8½c, those prices, however, must not be deemed settled, or as those that may be relied on to rule even to-morrow, but rather as movements in the dark, or at least uncertainty, and with an unsettled market.

The Cambria news is 16 days later than previous dates. Breadstuffs have fallen. Flour went down to 40s, but was 42s on the 4th. Sour Flour 37s to 38s. American wheat 10s 6d to 12s 6d per 70 lbs. Indian Corn steady at about 52s for prime yellow. Corn Meal 28s to 31s, with an upward tendency. Provisions in fair supply—demand dull—prices fair. Cotton has advanced. Upland is 5½d to 7d per lb.; Orleans 5½d to 8½d.; Alabama and Mobile 5½d to 7½d. Sea Island 12½d to 20½d; East India 1 to 1½ higher than by last steamer. Sales brisk. Prices of iron supported.

Financial prospects are animating. The crisis is over! The Bank discounting more freely, and bullion is increased ¼ of a million in a week. Part of the Russian loan arrived. Exchange 106½ to 109.

DEATH OF O'CONNELL.

O'Connell died at Geneva 15th May. His heart is to be deposited at Rome—his body in Ireland.

NEW YORK MARKETS

New York, 7 P. M.

Stocks buoyant after foreign news was made public, the advices being considered favourable in financial circles. Sales Treasury notes 6 1/2. Reading Railroad 92 1/2. Old 62 1/2 New 62.

The wheat has been but very little done in flour, as operators want to see the private letters before change. Large dealers would not name a price. We hear of sales of 1 to 5000 bbls. at \$3, but are not positive about the sales; \$7 5/8 is freely offered. Breadstuffs are in the same category with flour. Round yellow corn is reported sold at \$1, and some at \$1 1/2. Oats, 58c. to 59. Rye \$1 1/2. Before the news cotton sold higher, but no change has been done since. Values are without change. The excitement on 'change was intense. — [Globe Extra.]

THE WHEAT PROSPECT.—We have taken particular pains to converse with all our friends from the interior, in relation to the crops. We have also received many letters within the past two weeks, on the same subject; and we regret to say that we are firm in the belief that not a two-thirds, and we doubt very much if a half crop will be raised in Michigan. — Detroit Express.

THE WHEAT CROP.—We hear numerous complaints of the ravages of the Fly on the wheat crop. In many parts of this country entire fields are being swept down by that destructive insect, and we hear of similar complaints west of us. — [St. Joseph Rep. Michigan.]

THE WHEAT CROP.—We had supposed, and with very good reason, until within a few days, that the wheat crop would be at least an average one. But we are informed by Sheriff Martin, and others, who have visited different portions of the county, that what was not winter killed, is now being destroyed by the insects. So much so that the best fields will not yield more than five bushels per acre and many of them not two bushels. It is estimated by good judges, that this country will not yield a surplus bushel of wheat. — [Oakland Gazette]

Wool is selling in this village at from 13 to 25c per pound, according to quality. — [Ib]

Opening of the Provincial Parliament.

We give below the Speech of His Excellency, at the opening of Parliament. As the Speech is supposed to contain an announcement of the measures which the Government intend to introduce during the session, our readers will see what they are to expect. We are sorry to observe very important omissions. Though Parliament has now been two weeks in session, nothing has been done in the way of Legislation. The Ministry, after much debate, carried their answer to the Address by a majority of 2.

LEGISLATIVE COUNCIL CHAMBER, Montreal, 2nd June, 1847.

This day at Three o'clock, P. M., His Excellency the Governor General proceeded in state to the Chamber of the Legislative Council in the Parliament Building. The Members of the Legislative Council being assembled, His Excellency was pleased to command the attendance of the Legislative Assembly and that House being present, His Excellency opened the Third Session of the Second Parliament of the Province of Canada with the following Speech from the Throne:—

Honourable Gentlemen of the Legislative Council, and Gentlemen of the Legislative Assembly,

It gives me sincere gratification to meet you, that we may deliberate on the important interests committed to our charge.

The representations which have proceeded from this and the neighbouring Provinces on the subject of the Post Office, have engaged the anxious consideration of the Imperial Government. I am enabled to inform you that Her Majesty's Ministers are prepared to surrender to the Provincial Authorities, the control of that Department, as soon as by concert between the several Legislatures, arrangements shall be matured for securing to British North America the advantages of an efficient and uniform Post Office system.

By a Statute passed during the last Session of the Imperial Parliament, the Colonial Legislatures are empowered to repeal differential duties, heretofore imposed in the Colonies in favour of British produce. It is probable that by exercising this power, you may be enabled to benefit the consumer without injury to the revenue. I commend the subject to your consideration, and I shall lay before you certain communications relating to it, which I have received from Her Majesty's Secretary of State for the Colonies, and from the Lieutenant Governors of Nova Scotia and New Brunswick.

Measures will be submitted to you for extending more generally warehousing facilities to inland ports, and for effecting other improvements in our commercial system, all of which will, I am sure, engage your attention.

In pursuance of an address presented by the House of Assembly during the course of last Session, inquiries have been instituted with the view of ascertaining the practicability and probable cost of the construction of a Railway between Quebec and Halifax. A survey of the proposed line has been undertaken by the Imperial Government, and is still in progress.

I shall submit for your information a Despatch from the Secretary of State, describing the course which Her Majesty's Government proposes to take in order to remedy the inconvenience which the Provinces of British North America appear to have sustained from the operation of the Imperial Statute for the protection of Copy-right.

In view of the large Immigration which may be expected to take place this year, measures have

been adopted for providing additional accommodation and Medical attendance for the sick; and for increasing the means of forwarding the destitute, to places where their labour may be required. An increased grant has been made by the Imperial Parliament in aid of this service. Although it is to be feared that there may be much want and suffering among certain classes of Immigrants who arrive this Season, I have reason to believe that they will be accompanied by a greater number than usual of persons possessed of capital who are likely to prove an acquisition to the Province.

Gentlemen of the Legislative Assembly,

I have directed the Accounts of the Revenue and Expenditure of the past year, with the estimate for the current year, to be laid before you.

I observe with satisfaction that there is an increase in the Revenue derived from Public Works.

I rely on your making such provision for the maintenance of the establishments and credit of the Province as may be necessary to support the high character for probity and good faith which Canada has at all times maintained.

Honourable Gentlemen and Gentlemen,

We have reason to bless Providence for our exemption from the calamity of famine which which another part of the Empire has been so sorely afflicted, and I congratulate you on the liberality which the Inhabitants of this Colony of all classes and origins have evinced in contributing to the relief of their fellow subjects.

I cannot refrain from alluding to the fact that among those whose generosity has been so conspicuous on this trying occasion, are our Indian Brethren.

The occurrences of the past year, though in some measure exceptional, indicate that there is a growing demand in Europe for the produce of this Continent, and render it highly important, that the Inhabitants of Canada should improve to the utmost, its natural advantages, and those which attach to it, as an integral part of an Empire, abounding in wealth and population.

I feel confident that you will duly appreciate the responsibility which rests on Parliament at this conjuncture, and that you will endeavour by wise Legislation to afford all practicable extension and development to the trade and productive capabilities of the Province, and to give its institutions that hold on the affections of the people which is the foundation of public and private credit, and the best security for social progress.

In all measures calculated to effect these important objects, I am prepared heartily to co-operate with you, and I am authorized to renew the assurance of the earnest desire of our Gracious Queen, to promote the prosperity of Canada and the happiness of its people.

The Surveyors of the Great Western Railroad are busily employed on the line.

The Union emphatically denies the rumour that Mr. Pulk is about to call an extra session of Congress. It also denies the story that General Scott has been ordered to halt at Jalapa, and says that in all probability by this time Gen. Scott is treading the imperial capital of the Aztecs.

ARRIVAL OF EMIGRANTS.—We were last evening favored with the following interesting statistics relating to the arrival of emigrant passengers, and the number of deaths that have taken place amongst them, at sea as well as in the hospitals:—

Table with 2 columns: Period and Number of passengers. Rows include arrivals from Jan 1st to May 17th, May 17th to 31st, and total arrivals from April 2nd to May 31st.

This is a very large number, and if the arrivals continue to be as large as they have been in the last two months, the number this year will exhibit a decrease of fifty thousand. — New York Herald, June 2.

400 vessels passed through the Welland Canal in a month.

SCARCITY OF FLOUR IN NEW BRUNSWICK.—The St. Andrews Standard of Wednesday last, says:— "Flour has been selling here for \$12 per barrel, and not one barrel in town this morning."

An estimate of the moneys expended by England in war, within the last twenty years, is published in the India papers, as follows:—

Table with 2 columns: Year and Millions Sterling. Rows include 1827, 1839, 1842, and 1842-47.

This estimate does not include, it will be observed, the campaign of the Punjab, or the several little wars in Gwalior and other provinces, or even in the great China war, because those wars are supposed to have paid their own expenses.

During the month of May, 420 vessels passed through the canal—205 down, 215 up. 127 from and 114 to Oswego—58 from and 59 to Kingston. 15 being from American ports—15 up to and 16 down from St. Catharines and Thorold—18 down and 9 up from St. Catharines. 140 scows passed, and 140 rafts went down. — [St. Catharines Journal.]

It is said that the German vessel, the Estafette, which has arrived at Montreal, is the first vessel from Germany, that has arrived at that port since this country was ceded to the British Government.

SWEET.—Upwards of 12,000,000 pounds of maple sugar was manufactured in the United States last year.

The receipts of grain on the Hudson River since the opening of the Canal has been nearly double of what it was last year. The New York Herald predicts that bread stuffs will be cheap enough in a few weeks to satisfy all classes.

MISSISSQUO ELECTIO.—Attorney-General Bailegley has been returned by a majority of about 160.

The crops in New Brunswick are said to be looking well. There has been frightful mortality among the emigrants to New Brunswick.

PRINCE EDWARD'S ISLAND.—The Governor of Prince Edward Island has directed £3600 to be appropriated from the Colonial Treasury for the purchase of seed grain and potatoes, to be distributed among the most destitute of the inhabitants of the several districts of the Island, who may apply for the same—the amount to be refunded in January next.

In Bermuda, where the potato crop is being gathered, the disease has not made its appearance, except in one or two instances.

Small Pox has made its appearance among the passengers to Pictou, Nova Scotia,

Potatoes are 6 shillings to 7 shillings a bushel in Nova Scotia

Over \$100,000 of the stock of the Niagara suspension bridge has been subscribed.

Lady Elgin arrived in Montreal on Saturday week, accompanied by her brother, the Earl of Durham.

NEW ERA IN NAVIGATION.—On the 20th ultimo the three masted schooner New Brunswick anchored outside Chicago harbour loaded with 18,000 bushels of wheat, with which she has cleared for Liverpool. She goes by the way of the Welland Canal and St. Lawrence.

EMIGRANTS.—5,283 emigrants were entered at the New York Custom House in the first week in June.

On Monday, the 31st ultimo, the first red pine raft left Bytown, destined for the Quebec market.

The Montreal Courier states that many of the emigrants in the emigrant sheds in that city are in a state of utter destitution, and are supplied with provisions by the government.

SICKNESS AMONG THE EMIGRANTS.—The accounts from Grosse Isle are shocking. The sick are pent up in a narrow compass, and the healthy are breathing a foul and infected atmosphere. Hence it is hardly to be wondered at that the mortality is of the most fearful description. We are credibly informed that the deaths are between forty and fifty a day. — [Montreal Courier, June 8]

Bishop Alley of the Methodist Episcopal Church died at Hamilton on the 5th instant

The wires of the Montreal and Toronto Telegraph are put up in the neighbourhood of Kingston.

The cultivation of the sugarcane is becoming quite common in Texas.

The loss sustained by the Gore District Mutual Fire Insurance Company during the year is £2618 19s 5d.

A FRENCH COLLISION took place last week on Lake Erie, near Conneaut Harbour, between the Steamer Chesapeake and the schooner J. F. Porter. The latter was sunk; some of the crew were picked up, and three are said to have perished.

Flour is twenty dollars a barrel at the Magdalen Islands.

Two barges belonging to Mr Greer, of Kingston, laden with Pork and Flour, have been lost near the Long Sault.

Office of H. M. Chief Agent for the Superintendence of Emigration in Canada.

Quebec, 5th June, 1847.

Number of Emigrants arrived at the ports of Quebec and Montreal, during the week ending this date:—

Table with 2 columns: Steerage and Number of Emigrants. Rows include arrivals from England, Ireland, Scotland, Bremen, and Lower Provinces.

Previously reported..... 5346

Total..... 8691

To same period last year..... 11023

Decrease..... 2342

A. C. BUCHANAN,

Chief Emigrant Agent.

DEPLORABLE CONDITION OF EMIGRANTS AT GROSSE ISLE.—We learn from a source, upon the authenticity of which we can rely, that official information has been received by the Emigrant Agent in Chief, at Quebec, of the sailing of about 40,000 emigrants previous to the departure of the steamer of the 10th May, and it may be taken for granted that at least 5,000 more have sailed from ports from which no official advices have been received. The arrivals at Grosse Isle up to the 5th of June were 25,400; of this number there died at sea 1,997; the number of deaths at Grosse Isle, on shipboard and in the Hospital, up to the same date were 900; the number of sick in the hospital up to June 4th was 1,150, and on board the ships at the Station at the same date 1200. There were eleven vessels also which had not been boarded up to the evening of June 5th, and the estimated number of sick on board them was 350. Total number at present sick at Grosse Isle 2,700. — [Montreal Gazette.]

WHEAT, AND PORT HOPE MARKET.—During last winter there was more wheat bought in Port Hope than any former season. As near as we have been able to ascertain the quantity was 170,000 bushels, which, on an average of 4s. 3d. a bushel, would amount to £35,111, that was paid in cash for this production alone, to say nothing about the coarser grains and other produce, which form no inconsiderable item of the products raised in the immediate neighbourhood of this town where they are purchased, which demonstrates two undeniable facts, namely: that the back country is rising in importance as a wheat growing country, and that Port Hope is the only natural outlet for the great influx of its produce. Between 20 and 30,000 barrels of flour will be manufactured in Peterboro', and above 10,000 at the various Mills in Hope, Cayuga and adjacent townships, that will find their way to our harbour for shipment, making in all (allowing about 10,000 bushels of wheat purchased here to be shipped in bulk) about 30,000 barrels of flour that will leave our wharves this season for Montreal; this, at five dollars per barrel, will be worth one hundred and ninety-five thousand dollars. In 1844 there were about 100,000 bushels of wheat purchased in this town, and that of this year, shows an increase of seventy per cent in three years, which speaks well of the industry, and onward march in improvements of agriculturists in this location.

CREDIT HARBOUR COMPANY vs. THOMPSON.—This was an action to recover tolls and harbour dues. The defendant was sued as the owner of the vessel Industry, against which an account had been made out by the Company to some £— or £—. The defence was rested on the ground that the lumber and other property in respect of which the charges were made, was paid for by the owners of such property. One witness (Vanvolkenburgh) swore that he had paid for "all his lumber" himself, and produced receipts in full of all demand, dated subsequent to the time of any entry on the plaintiff's books against him. Some of the charges against the defendant were for the lumber of this witness. It was also contended that the defendant had never received credit, nor agreed to become responsible for any person's goods, but only for the tolls on the vessel. It was laid down by the Judge that unless such an agreement had been made previous to the giving of credit the defendant would not be liable. There was no proof of this except a course of dealing and one or two circumstances from which the jury were asked to infer it. They appear to have done so by giving the plaintiff's £1 1s. 7d. Connor and Sullivan for plaintiffs, J. Duggan for defendant.

SLAVERY—ONE OF ITS RESULTS.

The extract below exhibits slavery in one of its aspects, not the least common. While the chastising master is called "worthy," the uneducated, demoralized slave, who turns upon his tormentor, and who knows that there is no law to redress the wrongs of a black man, but such as his own hand may enforce, is a "demon". The slave will be hung, but had the other been the murderer, he would have been excused, as "he had a right to do as he pleased with his own property"!

REVOLTING MURDER.—The Holly Springs (Tenn) Gazette, of the 28th ult. says: "a worthy young man named Carpenter, was murdered on Saturday last, in the most shocking manner, by a slave whom he was attempting to chastise. Carpenter was literally 'chopped to pieces' by the demon—receiving many blows from the edge of an axe on the shoulders, back, and other parts of his person, any one of which would have produced death. The murderer was immediately apprehended."

We took a look into the Emigrant sheds this morning—saw much filth,—four or five cases of apparent sickness, and not much more than fifty persons. Although, as we are informed, about 5000 have landed at Toronto, they have nearly all found their way into the country. The poor creatures expect 9 or 10 dollars a month, and yet no farmer could afford to give for such labourers, broken down in spirit, weakened in body, and ignorant of every thing but the use of the spade, half that sum. They should be content to work this summer for their board, but they look upon those who tell them so as interested and unfriendly to them.

Toronto Market Prices.

Table with 4 columns: Item, June 16, a. d., and a. d. Rows include Flour, Oatmeal, Wheat, Rye, Barley, Oats, Peas, Potatoes, Onions, Tub Butter, Fresh Butter, Eggs, Beef, Pork, Hay, Straw, Timothy, Mutton, Veal, Turkeys, Geese, Ducks, and Fowls.



Advertising Department.

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 available 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

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 Waggon, 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



Home District Mutual Fire Company.

Office—Nelson Street, opposite Adelaide Street, Toronto.

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

DIRECTORS:

- W. A. Baldwin, William Mathers, Dr. Workman, John Doel, John McMurrich, John Eastwood, James Leslie, B. W. Smith, J. B. Warren, A. McMaster.

J. H. PRICE, Esq., President.

J. RAINS, Secretary.

All Losses promptly adjusted.

Letters by Mail must be post-paid. December 26, 1846. 444-

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 calculate on clearing off our Old Stock every winter.

Toronto, 1st January, 1847. 1-12m.

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

Fairbank's Platform and Counter Scales.

THESE SCALES are constructed with great care by experienced workmen, under the supervision of the inventor. 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.

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 Waggon Boxes, 2 tons Cast Steel, 3 tons Blister Steel, 1 ton Spring Steel, 4 ton Eagle Steel, 2 tons Camp Ovens, 2 tons Bellied Pots, 5 Blacksmith's Bellows, 60 Blacksmith's Vices, 15 Hils 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.

—ALSO—

JUST RECEIVED ex ships Capricorn, Baron of Braemar and Rockshire, in addition to their present Stock of HARDWARE,

15 PACKAGES OF SHEFFIELD & BIRMINGHAM

Shelf Goods,

With an Assortment of American Hardware.

Toronto, 25th March, 1847.

R. H. Brett,

161 KING STREET, TORONTO.

GENERAL MERCHANT—WHOLESALE

IMPORTER OF HEAVY HARDWARE, Birmingham, Sheffield and Wolverhampton SUGAR GOODS, FARTHINGWARE, and GLASSWARE in Crates and Hhds.

Also,—Importer and Dealer in Teas, Sugars, Tobacco, Fruits, Spices, Oils, Paints, Dye Woods, Gunpowder, Shot, Window Glass, Cotton Baling, 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.

Mr. C. Kahn,

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

J. Ellis, Civil Engineer.

HORIZONTAL, Inclined, and Undulating Lines of Railways Surveyed; Macadamized and Plank Roads, Canals, Docks, Harbours; every description of Drainage, Tunnels, and Bridges of Brick and Stone, Iron and Wood, both Permanent and Insistent, 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 Side 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. }

Board of Health Notice.

THE attention of the Citizens generally, is called to the following copy of an order made by the Board of Health, of the City of Toronto, at the meeting of the Board, held on the 9th instant, in the pursuance of the authority, vested in the Board by the Statutes 4th Wm IV., Chap. 23. and 5th Wm. IV., Chap. 10.

ORDERED.—That in order to adopt every necessary precaution to prevent the spread of contagious diseases, and to protect and preserve the health of the Inhabitants of the City, the Board do immediately proceed, either personally, or by other competent officers, to examine "all such premises in the City, as may appear to them to be in an unclean or filthy state," or which may have therein "any matter or thing, which, in their opinion may endanger the Public Health," and to order the proprietor or occupant of such premises to cleanse the same and to remove whatsoever may appear therein, which the said Board, or the said authorized public officer may deem dangerous to the public Health; and in case of the refusal or neglect, of any such proprietors or occupants of such premises to comply with the orders of said Board, or other authorized Public Officer, within the period that may be prescribed, the parties so offending to be forthwith prosecuted conformably to the Statute in such case made and provided.

Published by order of the Board of Health.

CHARLES DALY, C. C. C.

Clerks Office, }

Toronto, June 10th, 1847. }

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, INDIA RUBBERS, &c., of all sizes and quality, which he is disposed to sell on the most moderate terms.

JAMES FOSTER.

January 18, 1847. 1-

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.

Swain & Co's Hygienic Medicine,

OR, WORSDELL'S

Vegetable Restorative

PILLS,

RECOMMENDED as the best FAMILY MEDICINE now in use, by thousands in Great Britain, the United State of America, and Canada, for Restoring Impaired Nature to HEALTH and VIGOR, and preventing Disease in the Human System, by Purifying the Blood.

Prepared solely by J. SWAIN & CO., 65, George Street, Toronto; who respectfully call the attention of their Agents, and the Public in general, to their various other Medicines, particularly their CARMINATIVE for CHILDREN, and their STOMACHIC BITTERS, ESSENCES, PERFUMERY, &c. &c. &c.

Authorized Travelling Agents.

- Mr. Jacob Hick, Mr. James Wetherald, Mr. W. H. Smith, and Mr. D. Swallow;

By whom (and at their Establishment, as above) Orders will be received, and punctually attended to.

STRIKING CURES.

WHO WISHES TO THROW AWAY HIS CRUTCHES?

Read the following Extract of a Letter received from our Agent at Richmond, Dalhousie Dist:— Richmond, 5th August, 1846.

Messrs. John Swain & Co.—As Agent here, I beg leave to inform you, that in all cases where your invaluable Pills have been used in this vicinity, they have been productive of the most happy results: the relief afforded to individual suffering in various ways has been almost incredible; therefore I cannot pretend to give a detailed account of their various virtues; but at the same time I cannot forbear mentioning one particular case of a man, who, for some four or five months, was confined to his house, and most commonly to bed, and not able to reach the door of his dwelling, excepting by the use of Crutches, from the effects of inveterate running sores in both legs; yet, surprising to say, the Pills have entirely effected a cure, and the man is now able to work, and travel about his business, whole and sound:

his name is William Lackey, residing in the Township of Goulbourne, in this District.

I remain, Gentlemen,

Yours with respect, P. McELROY.

To J. Swain & Co.,

Edwardsburgh, January, 1847.

GENTLEMEN.—I have now great pleasure in handing you the annexed certificate, from my wife, which will speak for itself. Your General Agent, Mr. Wetherald, desired me to give him a certificate as soon as she was cured, but she refused to do so until she had remained well six months. That period has now elapsed, and I am happy to inform you that she has had no return of her complaint, but is in perfect health.

ABRAHAM WILSON.

CURE OF OLD STANDING STOMACH COMPLAINT.

By Swain & Co's Hygienic Medicine, or Worsdell's Vegetable Pills.

To J. Swain & Co.

GENTLEMEN.—For sixteen or seventeen years I was afflicted with a Stomach Complaint, attended with distressing pain and general debility, and for the last two years of the time I was not expected to recover. At that time my husband was appointed Agent for the Sale of your Pills, when I determined to try them myself, and, by persevering in taking them every day, till I had used five boxes, I was perfectly cured, and have remained entirely well ever since.

I remain, Gentlemen, yours respectfully, as

MARGARET WILSON.

REMARKABLE TESTIMONY.

Testimony of C. J. Forsyth, Esq., Wellington Square.

To J. Swain & Co.

Wellington Square, January, 1847.

GENTLEMEN.—I have been in the practice of using your Pills myself, and recommending them to others, and I have found them to be unequalled in their effects upon the human system; and I believe your Medicine is a safe and efficient remedy against those afflicting disorders to which mankind is subject.

I am yours very respectfully,

C. J. FORSYTH.

MARK THIS.

MRS. OLIVER, Wife of F. A. Oliver, Esq., Tyandemgo, parted with a Tape Worm from 25 to 30 feet long, from the use of Swain & Co's Vegetable Restorative Pills.

J. WETHERALD.

CURE OF INFLUENZA.

Mr. B. Wisner's Child was sick for three months, from Influenza, and was reduced to a skeleton, and all hopes of his recovery were given up. He was advised to take the Vegetable Restorative Pills, which soon effected a cure, and he is now enjoying good health.

CURE OF INFLAMMATION IN THE BOWELS.

Mr. W. H. SMITH, Toronto, was suddenly attacked with Inflammation in the Bowels: in this alarming state he took a few doses of the Vegetable Restorative Pills, and was perfectly cured in four days.

CURE OF GRAVEL.

Mr. SLATER, of Seneca, Grand River, suffered severely from Gravel, but, by taking a few boxes of the Restorative Pills, he is now entirely cured of that distressing complaint.

CURE OF LIVER COMPLAINT.

Mrs. Slater suffered for years from Liver Complaint, and tried various remedies without effect; she, however, took a box of the Restorative Pills, and, to the great astonishment and joy of herself and the whole family, she is now perfectly cured, and never enjoyed better health.

WONDERFUL RESTORATION TO HEALTH.

Mr. AVERILL, of the Township of Brantford, Farmer, was unable to work during the most of the summer; but, by taking the Restorative Pills for five days, he was so much better as to be enabled to perform a good day's work at cradling wheat.

THE

Canada Farmer,

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

TERMS:

Single Copies, 7s. 6d.; any person remitting Subscription for Five Copies, will receive one copy gratis; Twelve persons joining together, or one person sending \$12, will be entitled to twelve Copies. 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.

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.