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

Vol. I.

TORONTO, SATURDAY, NOVEMBER 20, 1847.

No. 22.

MANURES.

(Concluded from page 157.)

MANURES COMPOSED CHIEFLY OF MOULD.

These are of vegetable or animal origin. And first, of animal mould. Here we shall find, that we come, perhaps, better prepared to understand this part of our subject, than either of the preceding classes. We have explained principles which enable us to understand why it is that animal and vegetable substances produce, by theory, identical matters. The only difference consists in the quantity of these matters. Let me here, reader, call your remembrance to the facts we stated respecting the two classes of food, and the classes of substances formed from that food by animals. A certain portion of that food contains none of that principle which forms ammonia. This portion of food makes fat. Another portion of food contains the substance which forms ammonia. This part of the food forms flesh and blood, and the other parts of the body, skin, hair, feathers, bristles, wool, horns, wool, nail claws, thews and sinews. Now, when a body dies and decays, the mould which its forms will make rich manure, or poor manure, just in proportion as it contains more or less of the substances formed out of that portion of food which furnishes flesh and blood. The fat, therefore, in animal mould, plays a very inferior part to that acted by the flesh and blood. In a word, as I wish to dismiss the fatty matters from our present consideration, I may do this, reader, by stating to you, all that you need know, that in decay, fat forms chiefly carbonic acid. If, therefore, you call to mind what we have said about the action of that, you will see how fat acts in manure. But the flesh and blood, and the substances formed from it, give precisely the same things as vegetables do when they decay, that is, water, mould, and salts. The great difference between the decay of animal and vegetable matters, is this, that as the animal bodies are far richer in the substance, which forms ammonia, so they afford a richer source of manure. The animal body contains that element, in quantity enough, not only to fill the pores of its own mould, but also enough to impregnate a large quantity of mould from other sources. The vegetable body, on the contrary, contains scarcely enough ammonia to fill its own mould. Vegetables differ in the quantities of the elements of food, which can furnish flesh and blood, and hence those vegetables are best for manure, which furnish most ammonia. We have already remarked on the difference, in this respect, between straws, grasses, and clover. But without going further into this comparison, which can have no other practical bearing, than to show you the immense difference in value, in animal and vegetable bodies, in forming manure, we may here resolve the subject into one great principle. The substance which forms flesh and blood, whether derived from plants or animals, alone forms ammonia during their decay, and the mould thence arising, is rich or poor manure, just in proportion as it contains the substance, fit to form flesh and blood. Starting from this principle, we find that animal substances, as flesh, fish, fowl, the body generally, including its various forms of covering, hair, wool, feathers, nails, hoofs, horns, claws, &c., afford, in the process of decay, about ten times more ammonia, than the straws and grasses usually entering into the compost heap. The animal bodies give more volatile alkali, than their mould can contain.

It is given off in such quantity that

decay is rapidly hastened. All the signs of putrefaction, therefore, rapidly take place. The quantity of mould being small, nothing holds the volatile parts, they escape and are lost. Now common sense and practical foresight have stepped in here, from time immemorial, and taught mankind the necessity and utility of preventing the waste of the volatile and most valuable parts of the decaying animal substances, by covering them in with earth, soil, &c. These imbibe the escaping virtue or strength, and become rich and fertilizing. It remains to state, that every pound of animal carcass can impregnate ten pounds of vegetable mould; or, taking our arable soils as they usually occur, one pound of flesh, fish, blood, wool, horn, &c., can fertilize three hundred pounds of common loam. You will see, therefore, reader, how little you have now to learn of the necessity of saving everything in the shape of animal matters, and converting them to manure, by turning them into your compost heap. It is to be remarked, that the dry forms of animal substances undergo the process of decay when left to their own action very slowly. Wool, hair, flocks, horn-shavings, &c., or even leather chips and curriers' shavings, bear long exposure, and seem quite indestructible. They yet are rich in all the true virtue of manure. They want something to bring this out, to set them a working, to bring on fermentation. Well, on this head we may lay down two rules: the first is, that if buried among a heap of fermenting matter, that communicates a similar change to these dry, animal substances. This is slow work. The second rule is, that if these dry matters are buried in the soil among the roots of growing plants, then these act more powerfully than fermentation, and the dry substances are converted to manure with a speed which may be called quick, compared to the fermenting process. The practical lesson to be drawn from these differences of action between the fleshy and horny parts of the animal is, that when you want a quick and short action of manure, to use the fleshy and fluid parts. Where you want a more slow and permanent action, to commence and long last after the first is over, to use the drier and harder parts. If now we turn to the other division of mould, that from vegetables, we find it lacking in the very thing which was superabundant in animal mould. That thing is volatile alkali. The great mass of vegetable mould is always impregnated, but always slightly charged with volatile alkali. There is not enough of the flesh and blood forming element in vegetables to hasten the decay of vegetable matter, or to convert them, after decay, into rich manure. Now here again not science, but practical common sense steps in, and did step in long ago, and as she taught mankind the necessity of adding soil or mould to the decaying animal matter, so here, to enrich vegetable mould, she teaches that animal matter, or that which is its representative, ALKALINE SALTS, must be added to vegetable mould, to make it active. It is not the mould alone which plants want. We have seen all along how nature provides a certain amount of salts in her virgin mould; we by cropping exhaust these faster than the mould. We have tons of that, yet our fields are barren. They want, as has been explained, salts. And now, reader, having been brought by this course of reasoning to what the mould wants, consider what tons and tons of useless mould you have in your swamp muck and peat bogs, your hassoeks, and your turf meadows. All these, foot

upon foot in depth as they lie, are truly vegetable mould, in a greater or less degree of decay. If you dig this up, and expose it to the air, that itself sets it to work, decay is hastened, volatile matters escape, yea, ammonia, the master spirit among manures, is secretly forming and at work, warming and sweetening the cold and sour muck. Without further preparation, practice confirms what theory teaches, that this process alone furnishes from these beds of vegetable mould a very good manure. It is already highly charged with all the salts which a plant wants. But experience, doubtless led by a light of the good results of mixing mould with animal matter, to preserve its strength, has also reversed the practice, and taught the utility of adding to vegetable mould quickening salts; that is, either the volatile alkali, by composing the mould with stable manure, or alkali in the shape of ashes, or potash, or soda ash, or lime, or a mixture of these. In fact, whatever substance can by putrefaction give off volatile alkali, will and must, and does convert vegetable mould, of itself dead and inactive, into a quick and fertilizing manure.

If then, reader, you pause here a moment upon this fact, and then cast your view backward over the principles we have endeavoured to impress on your memory, you will perceive that there is not, among all the classes and kinds of manure which we have shown you, one which may not be added, or, as is the phrase, composed with peat, meadow-mud, swamp-muck, pond-mud, or by whatever other name these great store-houses of vegetable matter are called. These are the true sources of abundant manure, to all whose stock of cattle, &c., is too small to give manure enough for the farmer's use. It is the farmer's business to make a choice, if he has any but Hobson's, of what substance, or mixture of substance he will use. We have shown him how small a portion of animal matter, one to ten, of pure mould, will impregnate that substance. Taking then a cord of this swamp muck, we shall find it contains in round numbers, about one thousand pounds of real dry vegetable mould. So that the carcass of an animal weighing one hundred pounds evenly and well mixed up with a cord of fresh dug muck, will make a cord of manure, containing the elements, and their amount too, of a cord of dung. But it is not of the carcass of animals that the farmer expects to derive the quickening salts for his muck. This can be the source of that power only to the butchers, (what fat land they all have!) or to the dwellers near the sea, where fish is plenty. A barrel of alewives, it is said, fertilizes a wagon-load of loam. The carcass of a horse converts and fertilizes five or six cords of swamp-muck. A cord of clear stable dung changes two cords of this same muck into a manure as rich and durable as stable manure itself. These are all the results, reader, of actual practice. The explanation of the principle has only come in since the practice, and show the how and the why of this action. But the merit of explaining this action, would be, as nothing, if it had not conducted one step further. The explanation of the principle of action of animal matters, animal manures of all kinds, whether solid or liquid, on muck or peat, has led chemistry to propose, where these cheap and common forms of quickening powers are not to be had, to mix ashes, or potash, or soda ash with swamp-muck. Now, reader, this is not an idle, visionary, book-farming scheme. It is perhaps one of the few successful, direct applications of chemistry to farming, which speaks

out a defence of such book-farming, in tones and terms which bespeak your favourably consideration for the attempt which science is making to lend you, reader, a helping hand. This proposal, the offspring of science, has been carried out successfully by practical men in our own country, and has made its way abroad. Though this is not the place to give you the details of their results, you may rely upon the fact, that alkali and swamp-muck do form a manure, cord for cord, in all soils, equal to stable dung. Well now, after your patience in going over these pages, I hope you will find your reward in this statement. To be sure, it might have been said at once, and so have done with it, but I hoped, reader, and I am sure I have not been disappointed, that you liked to dive a little into the reason of things, and felt that you had farmed too long by the rule of thump, to be satisfied that it was the road either to improvement or profit. And so among your first attempts at improving your worn-out lands, always supposing you have not a barn-cellar, hogs, and swamp-muck, so aptly called by one of our own self-made practical men, the "farmer's locomotive," I presume you may like to know the proportions in which you may mix swamp-muck and alkali. You can hardly go wrong here by using too much, the great danger is, you will use too little alkali. But calculating on the proportion of mould in fresh dug swamp-muck, or peat, it may be stated as a rule, grounded on the quantity of quickening power in a cord of stable manure, that every cord of swamp-muck requires eight bushels of common ashes, or thirty pounds of common potash, or 20 pounds of white or soda ash, to convert it into manure equal, cord for cord, to that from your stable. Dig up your peat in the fall, let it lay over winter to fall to powder, calculate your quantity when fresh dug, and allow nothing for shrinking in the spring; when your alkali is to be well mixed in with the mould, and, after shovelling for a few weeks, use it as you would stable manure.

These quantities of ashes and alkali are the lowest which may be advised. Three or four times this amount may be used with advantage, but both the quantity of alkali and the number of loads per acre, must and will be determined by each for himself. It is a question of ways and means, rather than of practice. But supposing the smallest quantity of ashes or of alkali to be used which we have advised, then at least five cords of compost should be used per acre. This may be applied to any soil, light or heavy. But there is another form of this swamp-muck and alkali, which should be used only on light, loamy, sandy soils, to produce its greatest benefit, though even on heavy soils, if not very wet, it may be used with great advantage. This is a compost of one cord of spent ashes to three cords of swamp-muck. This is decidedly the best mixture which has yet been tried. We have in this all that mixture of various salts and mould which plants want, and both by the action of the mould and that of the air, the alkali of the spent ashes, which no leaching would extract, is soon let loose, and produces all the effects of so much clear potash or soda.

I have thus, reader, given you a few of the ways by which you may convert your peat bogs and swamps into manure, when you have neither cattle nor hogs. I have not thought it worth while to go into this subject further, and give you directions for lime and salt, or other matters which might be used. I have given you the

most common, and those well known and at hand. All you want, then, to apply these principles of forming composts, is to give them that little attention which will enable you to understand them. And the rest must be left to your practical common sense, without some share of which, farming, like everything else, would be vanity and vexation of spirit.

I would here, reader, take my leave of you, and in the hope that we may again meet to have another talk. There are a great many other points relating to manure, which can be understood only after we have made ourselves somewhat acquainted with the chemistry of soil. Then, having explained that, before the full action of manure can be understood, we must proceed a step further, and consider what changes take place in growing crops, and the effect of these growing crops upon soil and manure. The quantity and kind of salts they extract, and how soil is exhausted. This would lead to the consideration of the quantity and kind of manure to be applied to different soils, and the value of different manures. But there is one other very important thing belonging to our subject. Crops exhaust land, but fatten animals. Now this last properly belongs to that part of our subject relating to the changes occurring in vegetables, and their exhaustion of the soil. It will be seen, therefore, that the whole covers the ground called Agricultural Chemistry. This Essay is only its first part. If it meets your acceptance, I trust it may encourage its author to draw up its second part on soils, and its third on the effect of crops on soil, and their value as food for animals.

From the Farmer's Gazette.

BOILED FLAXSEED vs LINSEED MEAL.

In answer to a correspondent on this subject, we have been favoured with the following paper, on "Linseed, Linseed Cake, and Linseed Meal, for fattening cattle, and rearing calves," by Messrs. McAdam & Co., general millers, Donegal Street, Belfast, who have, for some years, seen it practised with the best results:—

"Almost every person in the habit of fattening cattle for the butcher, is acquainted with the fattening qualities of linseed cake, but rearing calves with linseed meal has only been introduced in this neighbourhood, within the last three or four years; it is now quite established, and a great saving is the result.

"Half a pound of this meal is sufficient for a calf daily, and this costs from one half-penny to three farthings, while a quantity of milk, containing the same proportion of nutriment, would cost eight pence to ten pence per day; a saving would thus be effected of at least six pence per day on each calf, which is 3s 6d per week for one calf, and £3 10 per week for 20 calves; and this for three or four months amounts to a sum worth saving.

"The linseed meal is the cake ground; the best way of using it is to steep at the rate of a quarter of a pound for each feed, in cold water, for 20 to 24 hours; then to dilute with warm water to the temperature of new milk, making a gruel about equal in bulk to the milk usually given—if any milk be added, a pint each feed is quite enough.

PLANTING EVERGREENS.—After all that has been said about spring planting of evergreens, or even mid-winter, I am persuaded that no part of the year can equal autumn—say from the middle of October until the end of November. I have moved hundreds of large evergreens at all periods within the last twenty years, and I have invariably realized the greatest amount of success by autumn planting. Much, however, depends on the character of the soil, as well as the mode in which the operation is conducted. Some persons advocate "puddle planting," but on what principles I have never discovered. Why not "puddle potting?" Certainly it is better to puddle a large specimen than to totally neglect it in regard to

moisture. My practice is this: To open a hole much larger than the ball of earth or volume of roots about to be introduced, taking care not to make the hole any deeper in general than the surface-soil extends; then to saturate the subsoil with water, and next to pulverize the soil thoroughly, in order for filling in round the roots. After this is completed, I invariably rake together a body of tree-leaves (if at hand) weeds sticks, &c., and throw three or four inches (sometimes a foot) in the bottom of the hole, to set the fall of roots on, putting little or no soil beneath the tree. The tree being carefully removed—not a fibre suffered to dry, if possible, during the operation—is placed on the leaves, and the process of filling up commences. I invariably mix decayed vegetable matter with the common soil; this is sometimes obtained on the spot by taking or paring the ground contiguous. The soil being in a mellow state, slightly trod as the filling proceeds, and when filled level with the fall of rather above it, the whole receives a thorough watering, using several cans of water at slight intervals. The next business, and a most important affair, is to thoroughly stake the tree to prevent wind waving. When this is completed a truck containing of half rotten manure or leaves will finish the process. Such trees should have one thorough soaking of water in the early part of April; afterwards they may be safely left to themselves.—Gard Chron.

TO CORRESPONDENTS.

J. W., *Penzance*, Nov. 12, and *St. Thomas*, Nov. 13—*rec'd.*

E. W. B., *Comland*. We have an Agent appointed for your District, but we hope you will use your influence in our favor.—The papers have been sent.

P. A. T., *Bridgeport*, *rec'd.* Read our notice to Agents.

B. W., *Jan. do.* We find your name properly entered in our mail book. The papers were sent in the parcel directed "Waterloo P. O." We will send again.

D. C., *London*. We have no particular information beyond what J. W. has given you. Papers are sent.

J. S., *Burford*, *rec'd.* Your request complied with.

W. A. S., *Norral*. Are you forgetting to appoint Local Agents?

CANADA FARMER.

November 20, 1847.

OUR SECOND VOLUME.

The reader will find a Prospectus of our Second Volume on the last page. The first No. will be issued early in January, and it is important that those who intend to take Vol. 2 should send in their subscriptions during next month, as we shall not otherwise be able to ascertain how large an edition will be required. It is far preferable that subscribers should commence with the first No. of the vol. as it will often happen that subjects are continued in successive numbers, and an Index being furnished at the end of the year, it will be found of great value to have all the Nos. complete, so that they may be stitched or bound, and preserved for future reference. As we cannot afford to print a very large edition, trusting merely to the chance of their being wanted, the only way to be sure of the earlier Nos. is to send in the name and subscription at once.

Subscribers to the 1st vol. who intend to continue their patronage (and we hope they all do) will please enclose the dollar with their address, in a letter to us, before the 1st January. When there are several in one neighbourhood it will save postage and be more convenient to send the order for all at the one time. Letters containing money, marked, and addressed to the "Editors Canada Farmer, Toronto," will be sure to reach us by Post.

To AGENTS.—We send this No. to all our local agents for the purpose of reminding them that it is necessary they should bestir

themselves (if they ever intend to) and forward us as many names as possible before the first of January next. The reason of our making this request is a very plain one. If we should strike off one or two thousand more than we can get orders for, we would be £100 or so out of pocket for which we should have waste paper. If we should print a smaller edition than will meet the demand then we shall have subscribers for the next six months sending, as at present, very urgent requests for the "back numbers," and we shall not be able to supply them—we press this matter upon the attention of our agents the more because many of them, although appointed one and two months since have not yet sent us a single subscriber! Either they are waiting to get 5 or 10 names before writing, or they have not obtained any, or they have not had. As soon as three names are obtained they should be sent in, but we don't think it is necessary to send a letter containing only one name and no money, costing us 7d. and 9d. postage. This may seem a trifle in one case, but if such a practice become general it is very clear, that after deducting the per centage allowed to agents, and the cost of paper and printing, what is left will be a small quantity.

Agents may think that we ought to send the Farmer to them regularly free of charge, but with 200 local agents, or rather persons who have promised to act as such, it would be too heavy an expense. We can afford to send them one now and then, but if they want the paper regularly they must subscribe.

Those persons (if any) who from any cause are unwilling to act as agents, after promising to do so, will oblige us by returning this No. with their name written thereon.

Those Editors who have favourably noticed the Farmer, will greatly oblige us by inserting for a few lines the Prospectus of our 2nd volume, which will be found on the last page of this No. In any way that we can, consistently with our position, reciprocate such a favour, we shall be happy to do so.

MANURES.

In this No. the Prize Essay of Dr. S. L. Dana, is completed. As to the value of the work we may remark, that it received the premium offered by the Massachusetts Society of Agriculture. It brings down the information upon this much vexed subject to 1844, is written in a remarkably plain style, by one of the best practical Chemists in the country, as the committee of the said society assert, and a man every way qualified for the task. This work, with the "Agricultural Chemistry" of Professor Johnston, both of which we have published entire, cost, at the book-seller's about half the price of our paper. The reader who has had the good sense to preserve his copy of the Farmer, will thus have in his possession two books of inestimable value as regards their contents, and of half the money price of this journal.

CURING PORK.

As this is the season when the slaughter of that useful animal the hog, is very generally engaged in, we submit to our readers a few reflections on the subject of curing hams and pork. There is no question but that there is great room for improvement in this operation as it is commonly performed among us. If a proper knowledge of the subject were more generally diffused and greater attention given to it by our farmers, they would realize far more profit than they do at present. We should not have our merchants and exporters sending to Ireland (as we have known them do) and other places where the business of salting and packing is carried on upon a large scale, for men who understand the right mode of putting it up, before they attempt to send our pork to a foreign market. The consequence of our inattention to any thing like system, is just this: the general character of Canadian Pork is low, therefore it brings but a low price when brought in competition with that of other countries. Another result is that a class of interloper traders spring up, whose profits, and they are often very considerable, must come out of the farmer's pocket in-

stead of going into it. We call them interlopers because they are not necessary to carry the article from the producer to the consumer; they buy up the fresh pork and by adding that labour to it which the producer should have performed himself, fit it for the market. There is one cardinal principle which is constantly violated in this case, and indeed in almost every case, viz. that of bringing the producer and consumer as near together as possible by lessening the number of individuals between them. On the contrary, from the imperfect, careless, hodge-podge manner in which our Beef, Pork, Butter, &c. &c. is prepared for exportation, the number of hands through which it must pass before reaching its destination, the monopolies on the St. Lawrence, and the consequent high rates of freight, and the low price which it brings at last, our Canadian Farmers are kept in the back ground, and till these obstacles are removed must always remain there.

We believe these are the great difficulties in the way of agricultural prosperity in Canada, and we must apply ourselves to get rid of them. The first and most important object is to produce something that will fetch a good price. We must get a better name for our exports in the English markets. To establish a good reputation we must have system and uniformity in the preparation of our articles, and this should be the first object to attract the attention of our Agricultural Societies. It is far more important that our Butter, for instance, should be well made and well packed in firkins or casks of a proper size and made of proper materials, than that a few men should be able to plough a furrow a little straighter and smoother than most ploughmen do. We make plenty of noise, and talk long enough about little things—subordinate questions, while the really great and vital interests are neglected. We shall return to this subject.

The following method of curing pork and hams, we find in that valuable work, Allen's American Agriculture:—

After dressing, the carcass should be allowed to hang till perfectly drained and cool, when it may be cut up and salted. The usual way is to pack the pork in clean salt, adding brine to the barrel when filled. But it may be dry salted, by rubbing it in thoroughly on every side of each piece, with a strong leather rubber, firmly secured to the palm of the right hand. The pieces are then thrown into heaps and sprinkled with salt, and occasionally turned till cured; or it may at once be packed in dry casks, which are occasionally rolled to bring the salt into contact with every part. Hams and shoulders may be cured in the same manner, either dry or in pickle, but with differently arranged materials. The following is a good pickle for 200 pounds. Take 14 lbs of Turk Island salt; 4 lb. of salt petre; 2 quarts of molasses, or four lbs. brown sugar, with water enough to dissolve them. Bring the liquor to the scalding point, and skim off all the impurities which rise to the top. When cold, pour it upon the ham, which should be perfectly cool but not frozen, and closely packed; and if not sufficient to cover it, add enough pure water for this purpose. Some extensive packers in Cincinnati and elsewhere, who send hams to market, add pepper, allspice, cinnamon, nutmgs or mace and cloves. The hams may remain six to eight weeks in this pickle, then hung up in the smoke house, with the small end down, and smoked from 10 to 20 days, according to the quantity of smoke. The fire should not be near enough to heat the hams. In Holland and Westphalia, the fire is made in the cellar, and the smoke carried by a flue into a cool chamber. This is undoubtedly the best method of smoking. The hams should at all times be dry and cool, or their flavour will suffer. Green sugar-maple chips, are the best for smoke; next to them are hickory, sweet birch, corn cobs, white ash, or beech. The smoke house is the best place to keep hams till wanted. If removed, they should be kept cool, dry, and free from flies. A canvas cover for each, saturated

with lime, which may be put on with a brush as a perfect protection against flies. When not to be kept long, they may be packed in dry salt, or even in sweet brine without injury. A common method is to pack in dry oats, baked saw-dust, &c.

WHEAT AND FLOUR FOR EXPORTATION.

We transfer with pleasure to our columns from the *Hamilton Herald*, the following remarks by the President of the Hamilton Board of Trade, J. T. Brondgeest, Esquire. They are in keeping with the observations we have made above on the subject of packing Pork, &c., and coming from one, who we believe, is admitted to be well acquainted with the practical questions of which he speaks, deserve the serious attention of the farming public. We understand that an enormous quantity of wheat and flour has been lost this year from the hurried and imperfect manner in which it was put up and shipped. Indeed, this is regarded as one item, and not a small one, in the recent failures of Corn merchants. The drying machine lately invented at New York, and noticed under the scientific head of our last No. is destined, we are led to believe, to effect a great improvement in the preparation of Bread Stuffs for transatlantic consumption. Mr. Brondgeest, says:—

Formerly, wheat received injury on the voyage to the shipping ports, partly from condition, and more so from negligence; it now generally arrives sound, and on the completion of the canals will be likely always to do so. Still enough injury is received afterwards to cause it to spoil on the voyage to Britain; add to which the loss of quantity, owing to its being shipped in bulk.

To avoid this it has been suggested that after being cleaned, wheat should be put up in barrels holding either a quarter or eight bushels, or half that quantity. Such barrels need not have much bilge, neither require to be tight, and could be made of sawed stuff of any cheap wood that might be at hand.

The advantages would be—facility of loading and unloading; readiness of ascertaining quantity; safety from damage unless actually wet; and security from the great loss now sustained from the spilling of the grain; and the saving from not having to hire or buy bags.

It has also been suggested that from the ease of loading, and from there being no necessity for lashing, that after the thing was well understood, both in-land and sea-going vessels would prefer barrels of wheat as freight to taking the same in bulk.

The various items of saving, both in money and time, would amply compensate for the cost of the barrels, especially as the latter, when done with, would always be worth the cost.

Where danger of heating occurs from damp, the kiln must be used for at least a fifth. Spring wheat always requires to be thus prepared for shipment.

In raising wheat, farmers should be careful to keep different varieties distinct, red should never be mixed with white, and as much as possible even different varieties kept apart. Any amount of labour and care spent in extirpating or preventing weeds, or even the mixture of other grain, is amply recompensed by a better price.

Compared to flour, wheat generally sells so much higher in the British markets that every care bestowed in producing an article that will give satisfaction, would be found desirable. Whilst wheat at 56s. per quarter, or 7s. per bushel—calculating flour 5 bushels per barrel, gave 35s. as the price, the flour itself was worth only 24s., being nearly 50 per cent in favour of shipping wheat, which would pay for all the pains that could be bestowed upon the production and the putting up, and upon a trifling further cost in packing in barrels.

Flour requires but few remarks. The faults formerly complained of—namely, light weight and unseasoned barrels—are comparatively rare. The greenness

of the wood from which the barrels may be made, not only causes the loss of flour and consequently of light weight, but also is frequently the cause of souring or becoming musty.

Wheat can hardly be ground too high and round; it were better that a portion be re-ground even, than to grind low. In France some of the finest qualities of flour are produced by grinding very high and then re-grinding all that does not pass the bolt, then adding the two together.—This would hardly please in the British market, still, by re-bolting the second grinding before adding to the first, it is probable a larger quantity than usual might be procured from a given parcel of wheat, and that too more agreeable to the taste of the British consumer, than if made according to the present method.

Whilst on this subject it may be remarked that it is highly injurious to the quality of flour to be carried as a deck load; it should in order to bring its full value, be altogether under hatches.

Spring wheat often, to be produced much under its real value—although producing a quality of flour much esteemed by Bakers—does not keep well enough to arrive for shipping purposes. This might be obviated by kiln-drying, but then the colour would be dark. But if $\frac{1}{2}$ kiln dried Spring wheat were mixed with $\frac{3}{4}$ white, Fall wheat in its natural state, the flour made therefrom, would keep far better than even the choicest qualities of ordinary flour—the dryness of the kiln-dried wheat absorbing all the moisture from the rest. There would be the strength of the Spring wheat, and the colour of the Fall wheat, and would in fact be the same as the finest of the European flour. With good management, the kiln-dried Spring wheat might even amount to one half.

To the Editors of the Canada Farmer.

NORVAL, Nov. 15, 1847.

DEAR SIRS,—I wrote you last from Hamilton. I left that city via Dundas and Nelson for Nasagaweya. I stopped on the way at Mr. Wetenhall's, late Warden of the Gore District, and I believe also the most successful breeder of imported Stock in the District. You will recollect, an enormous calf nine months old, by the side of a large white cow, at the late Provincial Exhibition; Mr. Wetenhall sold that calf since for £35; 38 ordinary calves would hardly bring that amount. He has also sold two other head of cattle lately, and the three together brought him between five and six hundred dollars. This is breeding to some purpose.

Mr. Wingfield, a spirited young English gentleman, imported, some sixteen years ago, at great expense, several specimens of the best English breeds, and settled in the Township of Pushtuch in the neighbourhood of Guelph, but at that time stock of this description was not so well appreciated as now, and the enterprise was anything but a profitable one. The cattle were sold by Mr. Wingfield who gave up breeding, and is now, I understand, doing business as a merchant somewhere in the Western part of the Province. Mr. Wetenhall was one of the purchasers of his stock, and it was in this way that he obtained the original of his celebrated herd. I understand that the rest of the stock was purchased by some gentleman in the Wellington District, and it is by this means that the stock of the township, in the neighbourhood of Guelph, has been so much improved, and, thus Mr. Wingfield has conferred an important public benefit at the expense, as it often happens, of ruinous private loss.

So far as I have travelled through it, the township of Nasagaweya is exceedingly stony, although there are some good farms that are very well improved, and the owners enjoying the fruits of them, pursuing industry in comfort and independence. But in passing the farms of others almost covered with stones and pine stumps, I have thought that in more ways than one their lot was a hard one. But there is one encouragement, that when they can get at the soil it is good, and yields a rich return.

Many of the farmers are clearing their fields of stone, and for the advantage of those and all others who have many stones to remove from their fields I shall here describe a stone truck invented and made by Mr. G. P. Ross, an extensive and ingenious farmer in the township of Toronto.

It has two wheels about 18 inches high and 3 inches wide, cut from the end of an oak log; an axle-tree 4 inches thick, and about 4 feet long. The tongue extends about two feet behind the axle-tree, and turns up like a

sleigh runner; the tongue lies on the top of the axle-tree and is gained into it; then there are two side pieces about $\frac{1}{2}$ feet long, and 3 inches wide, corresponding in shape with the hind part of the tongue. These are gained into the axle-tree, one on each end inside the wheels. They are connected together by a cross-bar at each end mortised into them, and between the bars there are tongs about 3 inches apart, something like a hay rack, passing through each of the side pieces, and both tongs and bars rest in the middle upon the tongue and it is upon this rack that the stones are placed.

Now, as we've got the truck ready we shall see how it will work. There is a stone on the top of the ground some 20 hundred weight; bring up the truck; now back it up to the stone, take off your horses, raise up the tongue till the hind part touches the ground; now roll the stone into the rack with two hand-spikes, take hold of the long end of the tongue and pull it down, you have such lever power two men can easily do it. Now hitch to your horses and away. When you want to unload it, take off your horses' tips up the tongue and "away she goes." How could it be done easier than that?

How many men would it take to put that stone on a wagon in the same time, or how many men, or how many horses would it take to haul it on a common stone-haul? When you answer these questions you can tell how much labour has been saved by using Mr. Ross' Truck.

Don't you think now that every farmer in Canada who has a stony farm ought to take the *Canada Farmer* for the sake of the above description alone? You say you think he ought, very well I am glad to hear you say so, and I hope you will do it yourself, and advise every one else to act upon that *think so*. But I'll tell you something more about Mr. Ross. He has adopted a very simple and efficient method of securing a load of hay from falling or sliding off; he uses two stakes about the size of a small hand-spike some 54 feet long, well rounded and pointed at the ends; when the load is on, he pushes them down, one at each end of the load, from the top to the bottom boards of the rack; when this is done any ordinary load can be drawn over any ordinary road to any required distance. If you had only known of this you would not have had the trouble of repitching that last tumbled load of hay about which you raged and foamed so much, would you? and the poor fellow that upset it would not have got such a scolding.

Before I leave Mr. Ross' farm I may mention something more, although not so important as either of the above, yet it will be interesting to those who are fond of nice and accurate arrangements. He has lately planted an orchard: the rows run perpendicularly to his lane fence, which is of boards, and each row of trees is of a distinct variety, and the name of each variety is painted upon the fence at the end of the row, so that he can always know the name of all the kinds of fruit that his trees produce, and can always tell with certainty where each is to be found.

But to return to Nasagaweya it is greatly broken by the mountain chain that coming out of Nelson passes through it into the upper end of Esquesing.

The "Windfall" has also passed through this township, although I have never seen any notice of this forest phenomenon. It nevertheless has been a very remarkable occurrence. Sometime about the middle of the last century a current of wind started somewhere in the west, and running almost due east, made a road through the forest from 4 to 4 a mile wide tumbling every tree in its course. When it began I do not know, but I have frequently crossed its path through Nasagaweya, the southern corner of Esquesing, the upper part of Trafalgar and through the township of Toronto into the lake. I have been told that it passed down the lake (no doubt making some strange railing of its waters) until it came to the opposite shore in the State of New York, and pushed on, no one here knows where; but if it kept the same course it must have crossed over the States of Vermont and New Hampshire and through Maine into the Atlantic Ocean.

Its track is most unmistakably indicated through the township I have mentioned, by the gap in the old forest, that has since been filled up by a succeeding growth of timber smaller, closer, & other, and in many places of a different variety from the former race, so suddenly and unceremoniously tumbled.

While I was in Nasagaweya I saw a farmer fixing his cabbage for the winter, his method is both simple and secure. He dug a trench some two feet wide, about 15 inches deep, and as long as required. He then placed crocheted sticks, some 3 feet apart (sufficiently long for the purpose) in the centre of the trench, on which he laid a pole—tied the cabbage by the roots two and two, after the loose leaves were taken off, and strung them along the pole, one on each side, like John Gilpin's bottles. He then fixed a pole on

each side of the cabbage to serve as rafters, then covered the whole with straw, and put on the earth and sods that were taken out of the trench. He told me that the neighbour from whom he took the plan had tried it and it answered the purpose most effectually.

I am dear Sirs,

Yours respectfully,

W. A. STEPHENS.

P.S.—The warm weather of this month has made a great improvement in the late sown wheat, and has removed a good deal of the apprehension that was felt in reference to that all important crop.

A VALUABLE RECEIPT IN A FEW WORDS. Every dairy should have a vessel of lime-water sitting in it, say a half a gallon of lime to 10 or 12 of water, simply to rinse everything in it. The vessel can be filled as soon as you please. It will be sure to remove all acidity or bad odour. Let dairy women remember this.—[Ex.

European Agricultural News.

THE CROPS.—There seems to be no doubt as to the general abundance of the harvest of the United Kingdom. Barley is said to be the greatest crop ever grown. Wheat is better than last year, but the quality not so good. Potato disease not so destructive as last year, and a much smaller breadth of land planted. Notwithstanding the good harvest as a whole, it is the general opinion that the increased and increasing consumption will require large importations for the next 12 months from abroad.

A late number of the *Gardener's and Farmer's Journal* states that the harvest in the East and South of France proved excellent. There was an abundance every where.

IMPROVING THE CURRANT.—There is nothing which grows out of the earth useful to man, but seems susceptible of improvement under his hand. The perfection to which English Gardeners have carried their art is astonishing. A Mr. Tomlinson in the *Midland Florist*, after describing several varieties of currants, which he had improved, gives the following as his method of proceeding:—

"I have selected some of the largest berries, on both Golath and May's Victoria, the seeds of which I intend to sow; and should these prove large I will again sow from the largest. By this means, in a series of years, I hope to arrive at the height of my ambition, namely, to produce currants as large as small marbles. Now I am confident there is nothing Utopian in this; and I am sure that if a few persevering individuals were to devote their attention to the improvement of the currant, it would be attained in less than ten years."

AGRICULTURAL INSTRUCTIONS.—We refer with pleasure to the proceedings of the Royal Agricultural Society on Thursday, and to the universal support which the Lord Lieutenant's proposition respecting practical instructions for the Farming classes is every where receiving, unless in certain Trash Journals, which of course, oppose that as well as every other useful and practical project. Sir Ralph Howard, ever foremost on occasions of this kind, has contributed no less than £50 to aid his Excellency in his views—Lord Fortescue £10, Mr. Richard Barke £5, and several of the local Farming societies have also declared their intention of supplying funds for the purpose.

At the Smithfield market, London, on the 7th inst., twenty disease sheep were seized, and their owner brought before the magistrate, who has since issued an order for the seizure of all such unsound cattle which are offered for sale in the market. From several other places in England we learn that sheep and other cattle are labouring under a severe epidemic. An epizootic disease has broken out with great violence amongst the cattle in the canton of Mezieres.

COCOA.—No sales reported, the market is quiet.

COFFEE.—The market has been dull, and holders would willingly realize at lower prices. The decline since the 1st inst. Jamaica 4s. to 5s. per cwt., and other descriptions in proportion. The sales of the two weeks ending October 10, are 100 tons, Jamaica, 1,500 bags Costa Rica, 800 bags Laguna, besides 60 bags St Domingo, which were sold at 34s. per cwt.

DRUGS, &c.—The transactions in Brimstone have been confined chiefly to small parcels from the ship side. Sicily Shumac has been in limited request at barely previous rates. Nothing has been reported in Argols or Tartars; both these articles are neglected.

DRY-SALT-TRIES.—At a public sale in the course of the last week 90 chests of Gum Arabic sold at rather easier rates; 50 bales and baskets Cambia at 12s. 3d. to 12s. 6d.; and 59 bags Sago.

STEAM PLOUGH.—A French paper, *Le Semaine*, announces the invention of a steam plough, or rather a mode of digging by means of steam, from which great results are anticipated. The inventor is a young medical man, named Baraff. The paper states that one of two horse power was in operation at the residence of the maker, who was constructing another of double that power. The machine proceeds along the field, and digs the ground with the greatest precision. Two beams furnished with five matts each, act successively upon the soil, loosening it to the depth of 12 or 15 inches, and pounding it as small as compost.

Civil and Social Department

THE MARKETS FOR OUR SURPLUS PRODUCTS.

The low state of our markets as compared with the American, from which the liberal tariff of that country practically excludes our produce, is attracting public attention to the disadvantages under which we labour; and plans partaking very much of the character of nostrums, are being suggested for relieving us from our difficulties, and establishing a reciprocal tariff, based on liberal principles, between the two countries.

It will appear evident on examination that this difference in price is not attributable to the operations of the American tariff, but to causes in a great measure extraneous, and the investigation of which must form the study of those who would arrive at a true knowledge of the nature of the evil; otherwise the application of the supposed remedy will be the imp-impard, reckless bungling of the quack.

So long as we have large quantities of wheat and flour to export, their value in the Canadian markets must be governed by the value of the article in those countries that have a short supply, and whose Government will evince a willingness to admit it at a low rate of duty. The only countries to which the Canadian people may with any degree of certainty calculate upon having as profitable customers for their surplus agricultural products, are Great Britain, the United States, and the West India Islands.

convey these products to the English market at a less cost than we can. When the period arrives that they can no longer do so, Canadians will have no incentive to seek admission to the American market, except in the event, which has no place in the chapter of probabilities, of their having generally a short harvest and we a redundant one.

We have been much puzzled at the following singular reference to this subject, put forth with an air of authority in a journal published in this city, bearing the name of the Provincial Advertiser:—

At the late Provincial Agricultural Exhibition at the city of Hamilton, the following resolutions were unanimously adopted:— Resolved—That from the experience of 1835, 36, and 37, and the present Autumn, it appears that when bread stuffs are higher in Europe than America they are higher in the United States than Canada.

Resolved—That a committee consisting of the President, Vice President, and Secretary of the Provincial Association, be appointed, and authorised to adopt any measures they may deem expedient to obtain access to the best market, and thus secure the best prices to the Canadian grower.

In conformity with the above resolutions the committee have authorised the receiving of subscriptions, in aid of the above object, to be remitted to Mr. G. W. Edmondson, editor of the British American Cultivator, at Toronto, on or before the 15th December next. Subscription lists, to raise a fund to aid in bringing about the above important result, are now in progress of being extensively circulated. They will be sent to some of the principal farmers, and others friendly to the cause, in each township of Western Canada, in the hope that those who are desirous of securing the best market for our agricultural products, upon the most advantageous terms, may contribute a small portion of their means for the purpose of securing that object.

The only thing that strikes one in reading the above, apart from the execrable, the worse than school-boy mutilation of the English language, is the total absence of all definiteness of purpose except the general invitation to farmers to remit money to a certain person, for an uncertain, undefined, and so far as regards the resolutions, an unauthorized object. It is not within the limits of probability that so respectable a body as the Provincial Association, intend to countenance such a hoax, such a monstrous fraud as a reading of the above would suggest to the scrutinizing or suspicious mind. Here are two resolutions published in a very unbusiness-like manner, unattested by a single name. The second resolution forms a committee of certain members of the Association, who are authorized to adopt any measures which they may deem expedient to obtain access to the best markets, and thus secure the best prices to the Canadian grower."

Beyond this the resolutions authorize nothing. We have next the authority of a newspaper paragraph for the statement that a certain individual, the reputed editor of that paper, is authorized to receive money for an object, the intended plan of carrying out which is left a profound mystery. At the risk of exposing ourselves to the charge of captiousness, we must say that we find it incompatible with our duty to the Agricultural public to restrain the expres-

sion of our regret that so rude a scheme, so thoughtlessly or disingenuously mystified, so studiously or carelessly left unexplained, should have been suffered to go to the public, with the sanction or apparent sanction of the Provincial Association. How do the committee intend to effect their object? Will they send a deputation to wait on Mr. Polk's Cabinet at Washington? Such a deputation would have no authority to do any thing, and would not be listened to for a moment. No less authority than the Legislature of the country can form a commercial treaty.

We have a serious apprehension that if the above resolutions and the accompanying paragraph should find their way to Washington, the members of the cabinet there would escape a fit of hysterics, only because they are not old women. The Provincial Association should explain the mode they intend to adopt to secure their object; they may then claim public assistance with a better grace. They should also state whether or not they are willing to be held responsible for every thing that appears in the newspapers owned by their secretary, written with a demi-official air. The idiosyncrasy of the Secretary is associated with an unhappy Organomania, which if not timely checked, will assuredly damn the Association.

The writer in the journal from which we have quoted should not have ventured to meddle with commercial questions till he had acquainted himself with the fact that England has not only "evinced a disposition to admit our grain at a low rate of duty", but that she has passed a law for admitting, duty free, the grain of every country in the world. We can ask no more liberal terms of admission to the English market. What our interests require are the repeal of the Navigation Laws; and thus the English Government appears willing to concede (so far at least as they affect us), and the completion of our public works.

Our intercourse with the United States should be as unrestricted as possible; not because they have any market to offer us, but because restriction cannot be otherwise than mutually disadvantageous.

EDUCATION IN LOWER CANADA.

We have lately observed with regret that, certain portions of the Common School Law of Lower Canada are so unpalatable to a portion of the inhabitants, as to lead to open resistance to the school tax. We give the following extract from the Quebec Gazette on this subject, on account of its historical importance:—

"Some of the Montreal papers are quarrelling about education and the opposition to the School Acts.

"There cannot be a greater error than to believe that the descendants of the first colonists of Canada are averse to Education, or a more injurious imputation, to accuse them of such an aversion.

"More was done for general education in the first years of the settlement than in any other colony. The Jesuits' College at Quebec is a striking monument of an early attention to the education of the male youth of the country, and Nunneries, of female education. The old inhabitants of Quebec still recollect well educated tradesmen, navigators, and others, who were educated at the Jesuits' College. Persons there were qualified to teach in all parts of the country, and there are parishes where every individual can read, and many can write and possess the elements of arithmetic, the same having been transmitted by their parents who had received education. The Jesuits' schools were closed about the time of the American revolutionary war; and their place voluntarily supplied by the Seminaries. The Provincial House of Assembly applied for the estates of the Jesuits for Education, in the first session after the Act of 1791. In 1810, a member had prepared a School Bill for the whole Province, when he was cast into prison in consequence of the political disputes of the times. Several School Bills were introduced after the peace of 1814; but it was not till 1829 that the inhabitants were authorised to hold property for School Houses, and pecuniary encouragement was granted. In four or five years there was 44,000 children at school when the population was hardly what it is at present: but the appropriations expired during the

wretched political contests which followed, and gave a check to elementary education. Since the Union of the Provinces, the School Acts have been constantly changing and every thing thrown into confusion by offensive and unconstitutional attempts at taxation, without representation and without the control of the tax-payers, and virtually placing the management out of the hands of the inhabitants."

THE CHOLERA AND ITS PREVENTATIVE.

This scourge of the human race is again spreading over Russia, has extended to Germany, and will probably re-visit the whole Continent of Europe, and cross the Atlantic to visit the Western World. The means of preventing it, stated in the following letter to the London Times, will, if really efficacious, be invaluable wherever this dreadful scourge appears:

To THE EDITOR OF THE LONDON TIMES.— Sir—The steady advance of the cholera westward appears to have called public attention to its probable re-appearance in England before long, and a paragraph in one of the London papers, of Friday, leads me to believe that the majority of persons will depend for protection upon any preparation which is advertised as "disinfectant," erroneously believing that all disinfectants have the same power over the virus which creates disease as they have over unpleasant smells. Allow me to correct this error by detailing the results of my experience during the visitation of this horrid malady in 1832, when, as a chemist, I laid myself out for a close examination into the cause, mode of propagation, and check for it. For this purpose I obtained information of, and visited in person all the earliest cases which showed themselves, in this city generally, and in each great establishment in particular. For some time I attended almost daily at the cholera hospitals, and experimented in every way I could think of, upon the dead and the living subjects, their contents and excreta, the atmosphere surrounding them and their articles of clothing. The conclusions I arrived at I forward for the information of those who have not had the same opportunities.

- 1. That the cause of cholera is a putrid animal poison capable of being recognised by the smell by some, emanating from and surrounding the dead or living cholera subjects, or articles of clothing.
2. That it is not sulphuretted hydrogen or hydro-sulphuret of ammonia, as it does not decompose salts of lead or zinc, and when passed through nitrate of silver it only forms a red solution when exposed to light.
3. That it is only received into the living body through the lungs, and cannot be propagated by inoculation.
4. That infection can be conveyed by articles of clothing, bedding, &c. and that washerwomen are more subject to infection than ordinary persons, from that cause.
5. That all persons are not equally liable to infection from equal exposure, and even the same individual becomes more sensitive under certain circumstances.
6. That the poison is destroyed by chlorine gas and a heat of 300 deg Fahrenheit.

As the object of the present communication is merely to give the public opinion a right direction, so as to help the future boards of health to combat with this insidious and powerful enemy, I must at once state that the two most popular disinfectants of the day—the chloride of zinc and the nitrate of lead, known as Sir W. Burton's and Ledoyen's, will be of no avail, although they will promptly remove ordinary putrid effluvia. The only chemical preventive I depended upon in my numerous exposures to the virus was chlorine gas, and this I believe to be a perfect one if the fumigation is complete. I invariably passed thro' an atmosphere on my return home, and kept it escaping into my residence during the continuance of the disease in this city. I also placed large quantities of the substance necessary for the evolution of this gas in the hands of a Bristol druggist, who was kind enough to distribute 1,200 quantities of it gratuitously to applicants during 3 days with instructions for the use. A man happily says that during that time the deaths fell from 10 to 1 per day, and I have but little doubt that if every ship arriving in England from an infected place, should be exposed to a perfect fumigation with chlorine, we shall be preserved from the infection. If the disease should pass this cordon, by any accident, then every house in the infected district should be simultaneously fumigated with it—say three times a day; unless done in all houses at the same time, it would be useless, or nearly so; and to do it effectually, a mixture of three parts common salt and one of black oxide of manganese, should be placed just inside the outer or street door of the dwelling house, and a little common vitriol poured upon it. The inward current of air will convey the chlorine gas in every part of the interior, and wherever it can be smelt the effect is produced—the miasm is destroyed. If articles of clothing are infected, and the colours likely to be injured by the gas, they may be heated in an oven or on a kiln, to 250 or 300 degrees, (about the heat of baking bread,) when they might be hauled or used with perfect impunity.

I am, Sir, &c., WILLIAM HERAPATH.

Bristol, October 11.

THE BUTTER TRADE.—As an evidence of the progress of the butter trade of Canada, we notice with satisfaction, that 2500 firkins have been shipped recently by a single vessel from this port, and understand that she had to refuse some parcels for want of room. The Board of Trade have also procured the appointment of a butter Inspector, whose directions and remarks will be very valuable to the trade.—[Montreal Witness

SONG OF THE SOIL.

BY J. H. R. BAYLEY.

I start the bulb of the beautiful flower
And feed the bloom of the wild wood bower,
I rear the blade of the tender herb,
And the trunk of the stalwart oak I curb;
I force the sap of the mountain pine,
And curb the tendrils of the vine;
I robe the forest and clothe the plain
With the richest of fruits and the richest of grain.

The cheek of the peasant I clothe with health;
And yield the sturdy yeoman wealth;
I give the spirit of commerce wings,
And prop the tottering throne of kings—
The gorgeous palace and the humble cot
Owe every atom to me they've got;
And the prince at his banquet and hind at his board
Alike must depend on the fare I afford.

Man may boast of his creaturely might,
His talents in peace, and powers in fight,
And lord it over the beast and bird,
By the charm of his touch and the spell of his word;
But I am the soul and mighty source
Whence flows the tide of his boasted force
Whatever his right and whoever he be,
His pomp and dominion must come from me!

I am the giver of all that's good,
And have been since the world has stood;
Where's there wealth on ocean, or beauty on land
But spring from the warmth of my fostering hand?
Or where's the object fair and free,
That claims a being, but's trad'd to me?
Cherish, then cherish—sons of toil!
The wonderful might of the fruitful soil!

And whence says the christian, dost thou obtain,
This power so mighty, of which thou art vain?
Thou boastest of that which is furnished to thee,
By him who is lord of both land and of sea,
For know that treasures which come from the sod,
Are only thine own as the gift of thy God.

The Evil Tendencies of Corporal Punishment, as a Means of Moral Discipline in Families and Schools, Examined and Discussed. By Lyman Cobb. Mark H. Newman, & Co., N. Y.

The little chubby-faced gentlemen who figure on tomb-stones in a pair of wings—and nothing else, have always been the envy of schoolboys, seeing they could neither sit down nor stand up for a flogging.

Mr. Cobb, it seems, would now make cherubs of the whole human race; or, at least scatter abroad the principles of a new and unflogged civilization. May he succeed in dethroning "the Cat" from the worse than Egyptian worship we accord to it! And yet, after all, cruelty is cruelty, whether it lacerates the feeling of the shoulders or of the heart; and a tyrannical teacher can as seriously outrage the spirit of a noble child by holding him up to the scorn of his companions, as by afflicting him with the lash. "You may flog my son, sir," wrote an old-fashioned parent, "whenever he misses his lesson; for I hold you an excellent judge of how much Latin and Greek a boy of his years can carry about with him; you may flog him too for breaking your clearly expressed rules of school discipline; but I insist upon your omitting all preachment and exhortation to a boy of mine. His parents only, from knowing his disposition, are the proper persons to touch his springs of character; nor do I see how your province of teaching Arithmetic empowers you to quote The Book of Numbers at him; nor what connexion his playing out of school hours, at marbles, has with the use of the globes, within doors."

The schoolmaster who was formerly an impinger is now a developer; he has been abroad since the days when people wrote thus to him. That is, he has stepped out of his school house, and now hitches himself on as closely to the discipline of families as did the priest in centuries gone by. The boy now studies his lesson at home, and only recites it to his teacher; so that the teacher has a fair plea for mixing himself with his surroundings as intimately as if he were a police officer who watched a suspected party within the jail limits. Boys themselves, it is credibly reported, are wilting up beneath these visitations of the evil eye; and it is now the reproach of modern urchinhood that at least half the boys in a school will "tell of each other;" or, in other words, become spies upon their companions at the instance of the master, who would thus subsidize them to aid in maintaining the discipline which he himself ought to enforce. What parent would not rather have a child flogged within an inch of his life than have him put to such base uses?

No, Mr. Cobb: in a truly spiritual view of this matter, flogging, *per se*, as Captain Tyler would tell you, is nothing to flogging as a mark of degradation, and the public opinion of each separate school-room, decides among the boys of that school what is the strongest mark of degradation. As many fine spirits have had the edge taken from them by having a fool's-cap allotted as their cue; many punishments—as many high-minded boys have had their sense of honour extinguished, by

being beguiled into treachery to their companions by some jesuitical or juggling teacher, as the use of the "cat" has ever "hardened." Yet we fully admit that, once indoctrinated a boy with the idea that a blow from the hands of his preceptor is an equal indignity to a blow given him by another boy, and there should be an end of all flogging. We admit this, while still holding it preposterous to recognise "reason," as Mr. Cobb seems to do, as the great governing principle of children. They are beings of instinct, impulse, imagination and passion. Their self-regulation is not from internal judgment, but from external pains and pleasures, and their discipline should be penalties and rewards. In a word: if we should form habits, as well as inculcate principles, more important than proving to the child what is best for him, far more important is it to "train him up in the way he should go."

From the Southport American.

THE GREAT LAKES.

The chain of "Fresh Water Mediterranean" that go so largely towards dividing the territory of "Uncle Sam" from the domain of "Mrs. Vic," are a geographical wonder. Extending from east to west over nearly fifteen and a half degrees of longitude, they seem, regarding them upon the map, to rest like a crown of waters upon the head of the Union, their centre of gravity the Island of Mackinac, balancing upon the meridian which separates Indiana and Ohio, equidivides Kentucky and Tennessee, and passes between Georgia and Alabama, and East and West Florida into the Gulf of Mexico. The difference in the latitude of the northern and southern extreme points of the Lakes is not far from eight and a half degrees. The estimated area of country draining into them is 400,000 square miles—the extent covered by the waters of the whole 93,000 square miles, divided as follows:—Ontario, 6,300; Erie, 9,600; St. Clair, 360; Huron, 20,400; Michigan, including the Bay, 24,400; Superior, 32,000. The waters of the "Father of Lakes" (Superior) are 628 feet above the level of the sea; which elevation is attained by equal gradations, each lake rising above the previous one, from Ontario to Superior. The surface of the waters of Ontario is 235 feet above the tide water of the St. Lawrence—Erie rises 333 feet above Ontario—St. Clair 6 feet above Erie—Huron and Michigan are 13 feet higher than St. Clair, and Superior rises 44 feet above those.

The St. Clair is by far the shallowest of any of the lakes—the average depth being about 20 feet—Erie average in depth about 84 feet—Ontario 500—Superior 900—Huron and Michigan 1000, as nearly as can be arrived at. The deepest soundings are found in Lake Huron. Off Signinaw Bay, we are told, leads have sunk 1,000 feet, or 1,200 feet below the level of the Atlantic Ocean, without reaching bottom.

Great difference is observable in the transparency and purity of the waters of the several lakes. Those of Ontario, Erie, and the Southern part of Michigan have no peculiar excellence—while those of the northern part of Lake Michigan and of Lake Huron, surpass in clearness and flavour any waters of which we have drunk, though a still greater purity and a higher relish is said, by those who have visited that lake, to distinguish the waters of Superior.

So completely transparent are the waters of Huron, that the rays of the sun are said to pass through them as through the cloudless atmosphere, without meeting with solid matters in suspension to elicit their heat. Thus Dr. Drake accounts for the fact, which he himself ascertained by experiment, that the water on the surface and two hundred feet below the same spot, had precisely the same temperament, 56 degrees.

Through the Welland Canal the navigation of the lakes is uninterrupted for the distance of 844 miles from east to west—the distance north and south is, of course, various, ranging from 347 mile as the extreme distance. The country to which these waters are the great highway of transport, has often been the theme of high wrought eulogium, for the variety and richness of its soil, and the extent of its resources. As well as the justness of these praises, as the extent to which this fertility is being subjected to in the hand of culture and the rapidity with which these resources are being developed, under the life-bringing touch of the enterprize which peculiarly characterises its inhabitants, is gathered from a bare glance at the fact that the commerce of the four lakes, including all capital afloat, during the year 1843, was estimated by the Topographical Bureau at \$65,000,000.

The total amount expended by the general government on these lakes for the improvement necessary to protect and convenience commerce, is stated by Mr. Whittlesey of Ohio, at \$2,100,000.

When the projected ship canal around the Falls of Ste. Marie, shall be completed, the

wide expanse of Lake Superior will be added to the present extent of the lake navigation—allowing the adventurous commercialist to crowd 175 miles still further North and several hundreds farther West. The length of the route proposed to be cut by this canal is said to be but three-fourths of a mile, and the whole expense of the improvement is estimated, if we rightly remember, at about \$280,000. By this comparatively small outlay, less than the cost of three months congressional black-guard, access is at once attained to the whole country tributary to Lake Superior—a tract so rich in timber and mineral wealth that it has not unaptly been termed the "Denmark of America."

GREAT BEAR FIGHT.

An encounter with four bears took place a few days ago, in the vicinity of Farn-height on the Madawaska River, in which a friend of ours and two of his men, were the parties engaged.

A trap had been set by one of the men named Jacob Harrison, who being out in search of a yoke of oxen, on the evening in question, saw a young bear fast in the trap and three others close at hand, in a very angry mood, a fact which rendered it necessary for him to make tracks immediately.—On arriving at the farm, he gave the alarm and seizing an old dragoon's sabre, he was followed to the scene of action by Mr. James H. Burke armed with a gun, and the other with an axe.

They proceeded direct to the trap, supplied with a rope, intending to take the young bear alive. It being a short time after dark, objects could not be distinctly seen; but on approaching close to the scene of action, a cracking among the leaves and dry branches with sundry other indications warned them of the proximity of the old animals. When within a few steps of the spot a dark mass was seen on the ground—a growl was heard—and the confined beast made a furious leap on Jacob, who was in advance, catching him by the legs, the infuriated animal inflicted a severe wound on his knee, upon which he drew his sword and defended himself with great coolness. Upon receiving several wounds from the sabre the cub commenced to growl and cry in a frightful and peculiar manner, when the old she bear attracted to the spot, rushed on the adventurous Harrison and attacked him with all the ferocity attendant on the circumstances. Jacob turned upon the new foe, and wielded his rusty weapon with such energy and success, that in a short time he deprived her of one of her fore paws by a lucky stroke, and completely disabled her eventually by a desperate cut across the neck, which divided the tendons and severed the spinal vertebrae.

Having completed his conquest, (in achieving which he found the sword a much better weapon than an axe, the animal being unable to strike it from his hand; every attempt to do so being followed by a wound) he had ample time to despatch the imprisoned cub at leisure.

During the time the stirring and dangerous scene we have related was enacting, war was going on in equally bloody and vigorous style at a short distance. Mr. Burke having discharged his gun at the other old bear, only slightly wounding him; the enraged bruin sprung at him with a ferocious howl. The animal was met by a blow from the butt-end of the fowling piece, the first stroke, the stock flew in pieces, and the next, the heavy barrel was hurled a distance of twenty feet among the underwood, by a side blow from the dexterous paw of the bear. Mr. Burke then retreated a few feet and placed his back against a large hemlock, followed the while closely by the bear, but being acquainted with the nature of the animal and his mode of attack, he drew a large hunting knife from his belt and placing his arms by his side coolly awaited the combat.

The maddened brute approached, growling and gnashing his teeth, and with a savage spring encircled the body of the hunter and the tree in his iron gripe. The next moment the flashing of the *couteau de chasse*, tore through his abdomen and his smoking rolled upon the ground. At this exciting crisis of the struggle, the other man accompanied by his dog, came up in time to witness the triumphant close of the conflict.

Two old bears and a cub were the fruits of the dangerous adventure—all extremely fat—the largest of which it is computed would weigh 250 lbs. We have seldom ever heard of a more dangerous encounter with bears, and we are happy to say that Burke received no injury; and Jacob Harrison although torn severely and having three ribs broken, is doing well under the care of an Indian doctor of the Algonquin tribe.

The above is one of the many perils incidental to the hardy and adventurous life of backwoodsmen— dangers manifold, by land and water, beset, the devious and difficult

path of the pioneers of civilization, yet we daily see them braving and overcoming every obstacle, in order to realise the anticipations of an enterprising spirit, and leave their names to future ages the landmarks of pristine improvement.—[Bytown Advocate.]

AMERICAN TEA.

We learn by a communication in the *Union*, that the Secretary of State has recently received a package of tea, grown in Brazil, from our consul at St. Catharines. The leaf is somewhat larger and darker than the Chinese tea; its flavor is strong and aromatic, and resembles the best specimens from China. When prepared, it strongly assimilates to the mixture of black and green tea, much—indeed, almost exclusively—drunk in England; after China, the greatest tea drinking country in the world. The tea plant was first introduced into Brazil by King John, of Portugal. The writer of the communication states that the successful cultivation of this plant, in the United States, may be looked upon as a matter of certainty; as a climate exists in the States of North and South Carolina, Georgia, Tennessee, Florida, Alabama, Mississippi, Louisiana, and Texas, extending one degree south of the Rio Grande, precisely similar to the tea growing districts of China.

The tea-drinking old lady of the *Union*, referring to the beverage produced by this plant, gives an opinion thereon, in the following distinct and precise terms:—"We have tasted the Brazilian tea; and though we are no great amateurs of the black tea, yet there is so much infusion of the taste of the green tea in it, as to render it extremely palatable."—[Buffalo Express.]

READING IN CHILDREN.—Reading without intelligence injures the brain and stomach mechanically; reading with intelligence injures both in the less direct manner in nervous excitement; but, either way, much reading and robust health are incompatible. Only let a child eager for knowledge be read to, instead of allowing him to read himself, and the whole of the mechanical mischief is avoided; and again let him be freely conversed with in a desultory manner, in the midst of active engagements in and out of doors; and then, while an equal amount of information is conveyed, and in a form more readily assimilated by the mind, nearly all the mischiefs of excitement, as springing from study, are also avoided. In a word, let books in the hands, except as playthings, be as much as possible held back during the early period of Education.—[Home Education.]

ANTIQUITY OF THE ELECTRIC TELEGRAPH.—The old adage that there is nothing new under the sun, receives some countenance from the following reference to the Electric Telegraph—the most wonderful of our modern inventions, the idea of such a medium of communication having been suggested "a long time ago."

Strada, in one of his *Prohibitions*, (lib. ii. prol. 6) gives an account of a chimerical correspondence between two friends by help of a certain loadstone, which had such value in it that if it touched two several needles, when one of the needles so touched began to move, the other at never so great a distance, moved at the same time and in the same manner. He tells us that the two friends being each of them possessed of one of these needles, made a kind of dial plate, inscribing it with the four and twenty letters, in the same manner as hours of the day are marked upon the ordinary dial plate. They then fixed one of these needles on each of the plates in such a manner that it could move round without impediment, so as to touch any of the four and twenty letters. Upon their separating from one another into distant countries, they agreed to withdraw themselves punctually into their closets at a certain hour of the day, and to converse with one another by means of their invention. Accordingly, when they were some hundred miles asunder, each of them shut himself up in his closet at a time appointed, and immediately cast his eye upon his dial plate. If he had a mind to write any thing to his friend, he directed his needle to every letter that formed the words which he had occasion for, making a little pause at the end of every word or sentence to avoid confusion. The friend in the meanwhile saw his own sympathetic needle moving of itself to every letter which that of his correspondent pointed at. By this means they talked together across a whole continent, and conveyed their thoughts to one another in an instant, over cities or mountains, seas or deserts.

STATISTICS OF CAPITAL PUNISHMENT.—The *Law* (English) Magazine states—"On the 1st October, 1836, death punishment was abolished for—1st. attempt to murder, attended with no results dangerous to life; 2nd. burglary; 3rd. robbery; 4th. arson; and in the year 1841, for rape. In every one of these crimes there has been an increase since the removal of punishment. Taking the three years which preceded the change, and the years since 1842, '43, and '44, after the change, the increase on the 1st has been 83 per cent; on the second 115 per cent; on rapes 100 per cent.

There are now in operation in the United States about 5,000 miles of railroad, which has cost \$160,000,000.

Our Table.

GENESE FARMER.—This excellent monthly, published at Rochester, is sure to contain something new and interesting to the lovers of rural life.

MORTALITY IN THE ARMY AND NAVY.—The numbers of those who perish in battle, or afterwards from wounds, is small compared to those who die from other causes.

THE AGE OF THE GLOBE.—For those who are disinclined to enter into the abstrusities of general chronology, it may be sufficient to notice that the age of the world, and the number of years which have elapsed from the nativity of Christ are involved in difficulties from which they appear inextricable.

STATISTICS OF GREAT BRITAIN.—In 1913, the population of Great Britain was about 13,000,000. The Income Tax in that year produced £15,000,000 at 10 per cent, now at less than 3 per cent it produces 5,000,000.

POPULATION OF ROME.—The city of Rome is divided into 54 parishes, containing 47,530 families; the ecclesiastical population consists of 30 bishops, 1514 clergymen, 217 monks and friars, 175 nuns, and 511 students.

The sum of \$75,000 has lately been offered for the patent right of an artificial leg, lately invented by a Yankee in New Hampshire.

Scientific.

We are indebted to the Colonist for the following analysis of Mr. Logan's Geological Report for 1846-7.

GEOLOGICAL SURVEY, 1846-7.

The labours of Mr. Logan, and his assistants, during the years 1846-7, were directed to the geological examination of the French States on Lake Superior, the topographic survey of the various mining locations, and the inspection of the mineral veins, with a view to and determining the direction most consistent with the general interests, that should be given to the bounding lines of the several locations.

According to Mr. Logan's account, the shores of Lake Superior present a bold and rocky appearance, eminences of from 50 to 130 feet rise abruptly from the margin which is indented with innumerable bays, or protected by extensive clusters of islands, thereby providing numerous safe and commodious harbours for vessels that may be hereafter engaged along the lake.

Several considerable streams fall into the lake, of which the Kaminiquia and the Michipicoten have been examined by Mr. Murray. These rivers take their rise in the height of land separating the waters of Hudson's Bay from the Saint Lawrence.

The series of Geological formations on the North side is as follows:—

- 1st. Granite and Syenite.
2nd. Gneiss.
3rd. Chlorite and partially talcose and conglomerate Slates.
4th. Bluish Slates or Shales, interstratified with Trap.
5th. Sandstones, Limestones, indurated Marls, and Conglomerates, interstratified with Trap.

The Granite seems to partake of the properties of the Gneiss and Syenite, and in some cases even to pass into those formations. The gneiss and granite are often traversed by veins or dykes of a granitic character, which do not seem to be accompanied by any metalliferous veins.

The two succeeding formations are traversed by an immense number of trap dykes and mineral veins. The trap dykes have some a porphyritic others a syenitic character, but the greenstone dykes are most numerous. They appear, in general, to be more durable than the rocks through which they pass, and hence we may explain the formation of the long promontories, with deep recesses, affording commodious harbours, which may be so frequently observed along the shores of the lake.

The metals which are met with in formations of Lake Superior are copper, lead, zinc and silver. The veins run parallel to the dykes, which are either coincident with the direction of the strata, or transverse them. The metals are generally in the form of sulphurets, the silver and copper being often found in a native state—the ores of copper are the vitreous, and variegated copper and copper pyrites; besides these, carbonate of copper is often found where the veins have been exposed to atmospheric influence.

Mineral veins analogous to those on the upper formations were found penetrating older rocks, but they did not seem to be of frequent occurrence, and but few observations have as yet been made respecting them.

After describing the geographical distribution of the above mentioned formations, Mr. Logan proceeds to the consideration of the "Economic application of materials," under which head he communicates a quantity of information that our speculators would do well to study.

possible; some idea may be formed of the probable yield. According to analyses made by Mr. Hunt, average samples yielded from 2 to 7 per cent, while the thickness of the lodes ranged from 10 inches to 4 or 5 feet, yielding from three-quarters of a hundred weight to three-quarters of a ton of fine copper in a fathom forward by a fathom vertical of the lodes.

In Cornwall, the average of the ores, after dressing by washing, is 8 per cent, or less. In some mines the average does not exceed 4, even after dressing. The Irish ores are raised to a higher per cent than 8, in order to bear the cost of transport. The Cuba ores have a high percentage from the same cause, varying from 22 to 16 per cent.

Mr. Logan enters pretty fully into the manner in which the ores are sold at Swansea, by tickets as they are termed. He mentions the ores, or mixtures of ores, that have been found to be the best for smelting, and at the end of his report throws out a suggestion that Saginaw Bay was probably become the spot where a central smelting establishment for the produce of Lake Huron and Superior may be formed, owing to its proximity to the coal formation of Michigan.

The report of Mr. Murray contains a description of his examination of the two tributary rivers of Lake Superior the Kaminiquia and Michipicoten.

WORKINGS OF GEOLOGY.—More than 9,000 different kinds of animals have been changed into stone. The races of genera of more than half of these are now extinct, being as present known in a living state upon earth.

CHEMICAL ANALYSIS OF TEA.—In the memoirs of the London Chem. Society there is an interesting paper by Mr. Warrington, on the analysis of tea in which he states that he has not only removed the whole of the colouring matter or gazing, from green tea, but he has been able to analyse the matter removed, and to prove it, by chemical evidence, to consist of Prussian blue and green principally.

TO MAKE A WRITING APPEAR AND DISAPPEAR AT PLEASURE.—Dissolve equal parts of sulphate of copper and murate of ammonia in water, and write. When you would make the writing appear, warm the water gently by the fire; the writing will appear in a yellow colour, but as soon as you take the paper into the cool air, the writing will vanish. This may be often repeated.

THAT OLD TEA-KETTLE.—Don't throw away that old cracked tea-kettle, I say said old aunt Patty Parly. It is one of the most useful articles in the pot-closet. When you have a cracked tea-kettle, then you have the best thing in the world for cooking potatoes.

TO SET A COMESTIBLE BODY ON FIRE BY THE CONTACT OF COLD WATER.—Fill a saucer with water, and let fall into it a piece of potassium of size of a peppercorn, (which is about two grains.) The potassium will instantly become red-hot with a slight explosion, and burn vividly on the surface of the water, darting at the same time from one side of the vessel to the other, with great violence, in the form of a red-hot fire-ball.

From the Liverpool Albion.

ANGRY WORDS.

Angry words are lightly spoken. In a rash and thoughtless hour; Brightest links of life are broken By a deep insidious power.

For the Ladies.

A WORD TO MOTHERS.—Mutual confidence should be a governing principle in the communion between parent and child. This cannot exist where the former acts only as a judge and lawgiver, who acknowledges no compulsion, no sorrow, who cannot weep and hope with the offender.

Reverse this picture, and see the child who has been governed by fear—a suspicious, timid glance, and endeavour to escape observation, no spontaneous prattle, no words or actions pouring out the unconstrained thoughts and feelings, nothing truly enjoyed, because there is an undefined fear of doing or saying something which may provoke rebuke; or if there be enjoyments, they are received in silence and in that selfishness of heart which leads to selfishness.

Scraps.

A long-legged Yankee, on visiting a menagerie for the first time, while strolling round the pavilion, suddenly came on the elephant; whereupon he turned to the keeper, and said with surprise: "Thunder and lightning, mister, what darned critter have you got here, with a TAIL ON BOTH ENDS?"

A lover on the point of marriage was conversing with his sweetheart on the Chinese custom of hanging the feet of a male infant. He said he supposed it was done to keep them from gadding about, and that he approved of the custom. "Then," cried the sweetheart, "a Chinese wife will best suit you." The jug was up. They never married.

"Pray, sir," said a commissioner to an insolvent brought up to be discharged on his petition, "how could you willfully, and with your eyes open, contract such a number of debts without any visible means of paying them?" "My lord," said the petitioner, "you labour under a great mistake—I have never in my life willfully contracted a debt; on the contrary, I have invariably done everything to enlarge it!"

A Western paper contains an advertisement of a farm for sale, and as an inducement to purchase it, says: "There is not an ATTORNEY within 15 miles of the neighbourhood."

AN ACTUAL OCCURRENCE.—In the Court of General Sessions, one day last week, before Judge Parsons, the following circumstance actually occurred;

An Irishman was arraigned for some petty crime, when he was asked the usual question, upon the reading of the indictment, whether he was guilty or not guilty?

"And how can I tell your honour until I hear the witness?" he promptly replied, and with the innocence of a child.—[Germanown Telegraph]

"Ah! dear doctor, how is my wife to day?" The doctor shook his head and said—"you must prepare for the worst." "What," said the husband, "is she likely to get over it?"

The heat of an oven applied to a dead human body for twelve days, reduces it from 120 to 12 pounds.

We beg to direct the attention of our readers to the advertisement of Mr. Manning, who has established a Land Agency, &c., in this city.

News Department.

MORE PAUPER EMIGRANTS.—It is horrible to contemplate the barbarous cruelty and heartless indifference of some of the Great Irish Landlords.

It is also stated that another vessel with 230 paupers of the same description, and from the same source, had sailed on the 22nd Sept.

Contracts for the section of the Great Western Railway, between London and Windsor, have been entered into.

It is asserted, with a good deal of confidence, that a dissolution of Parliament will immediately take place, and a general election follow.

A gang of brigands, the supposed robbers of a number of churches in Lower Canada, have been captured at Montreal.

The Halifax (Nova Scotia) Times states that there is scarcely an exception to the general failure of the potatoe crop in that region.

Snow was nine inches deep in Quebec on Monday the 15th inst.

Two men, named George Beadle and George Noble, now lying in Hamilton gaol, under sentence of death, have been reprieved.

NEWFOUNDLAND.—The failure of the potatoe crop, and the partial failure of the fishery, this season, has caused considerable destitution in Newfoundland—particularly at the outports.

We were yesterday shown a sample of wheat grown in the district of Bonavista Bay, this season. It was sown on the 22nd May, and reaped on the 10th September; yielded 25 fold the weight of the seed sown, and is fully equal to the average quality of the spring wheat produced in Lower Canada.

J. E. Mills, Esquire, Mayor of Montreal, has fallen a victim to the typhus fever, contracted by contact with sick emigrants: death has been the reward of his courageous benevolence.

DEATH OF DR. HAMILTON.—We regret to state that Dr. Hamilton has fallen a victim to the prevailing fever, contracted in the discharge of his professional duties towards the sick emigrants.

Sir Richard Bonycastle died in Kingston on Tuesday, the 2nd inst. He has lived in Canada something more than 30 years.

GOVERNMENT EMIGRATION OFFICE. } Quebec, 27th October, 1847. }

Return of the number of emigrants arrived from the opening of the navigation, to the 27th Oct., in 1846 and 1847:—

Table with 3 columns: From (England, Ireland, Scotland, Germany), 1846, 1847. Total: 31,521 in 1846, 92,718 in 1847.

N. B.—The deaths on the voyage and at Grosse-Isle are to be deducted from the above.

New York, Oct. 25th.—CANADIAN EXPORTS.—Since the first of July, the following list of Canadian produce have been received at this port, for Oswego, and exported to England:—

Number of emigrants who have died at Grosse-Isle during the present summer, 3,452; died on the passage, 3,690; at Marine Hospital, Quebec, 1,000; in vessels at Quarantine, 1,182,—making a grand total of 9,324.

GOVERNMENT EMIGRATION OFFICE. } St. John, N. B. 23rd Oct. 1847 }

Up to the last day of October, just inst., 94 vessels arrived at this Port, and landed 15,229 passengers. The deaths of set on board these vessels amounted to 102.

Table with 3 columns: Brig. Caroline, from Limerick; Barque Unity, Londonderry; Schooner David, Galway; Barque James, Liverpool. Total: 535.

The whole number landed New Brunswick the present season, up to this date, 15,794.

Lists of passengers by the undermentioned vessels have been received at this office:—

Table with 2 columns: British Queen, Londonderry, 44 passengers; Triumph, Sligo, 44.

In these two vessels there are 23 adult males; the residue consists of women and children.

H. M. PERLEY, H. M. Emigration Officer.

GENERAL POST OFFICE.

Montreal, 25th Oct. 1847

From and after the 16th of next month no American Postage is to be collected in Canada, either upon Letters and newspapers coming from or going to the United States.

You are not to understand by the above, that our Post Office communications with the United States are to cease,—on the contrary, the inter course (so far as I am at present instructed,) will continue as at present with the difference above indicated, viz: That no American Postage is to be collected within the Province.

All letters to the United States must continue to be pre-paid to the Frontier Line.

T. A. STAYNER, D. P. M. Genl.

NOTE.—You will understand that you may receive American Postage on Letters for the United States, which will reach your Frontier Office, by or before the 16th November—but not after.

TRADE OF NEW BRUNSWICK.—There were cleared at this port in September, 10 vessels for Hull, 7 for Liverpool, 5 for London, 3 for Cork, 2 for Glasgow, 2 for N. York, 2 for Ayr, and one each for Bristol, Dublin, Greenock, Gloucester, Newcastle, Newport, Bridport, Waterford, Boston, Exeter, Aberdeen, and Sligo.—Total 43 vessels for the United Kingdom, with cargoes amounting in the aggregate to 9805 tons Pine Timber; 961 do Birch; 493 do Spruce; 9,211,094, feet Boards; 17,188 do plank; 92,740 do Scantling; 141,000 Piling; 89 cords Lathwood; 10,000 Laths; 48,098 staves; and 500 boxes Herrings.—[St. John, N. B. Oct 12.

CROPS IN NEW BRUNSWICK.—We are sorry to learn from authority which we cannot but trust, that the crops this season in the Province have turned out generally very defective. Potatoes will not be near half a crop, as compared with other years, these two last excepted. Oats though strong in the straw and promising well, never properly filled in the grain, and will not be much over half last year's crop.

A St. Petersburg letter states that the amount in value of the corn exported from Russia since the last harvest is 22,591,821 roubles, equaling about 132,000,000 francs.

APPOINTMENTS, &c.—Sir W. Colebrook, late Governor of New Brunswick, has been appointed to that of British Guiana, succeeding Mr. Light, who retires. Sir Edmund Head assumes the Governorship of New Brunswick.

DEATH FROM PAREGORIC.—The New York Express, of Monday, says:—The Coroner held an inquest yesterday, in 2nd street, upon the body of John Sloan, aged 4 months.

DEATH BY FIRE.—On Sunday night last, Mr. John Sproule was burned to death, in a shed adjoining a coal pit in the Township of Vessing.

HORSE THIEVES ABROAD.—A valuable mare, belonging to Mr. Samuel Forsyth, was stolen on Friday night last.—[Ibid.

WILL IT BE DONE?—A contract, we are told, was completed yesterday, between a celebrated steamboat builder and a party belonging to this city, for the building of a steamer four hundred feet in length, with the usual magnificent decorations, as well as the power of making a trip from this city to Albany, and back, in twelve hours.

NIAGARA FALLS SUSPENSION BRIDGE.—The Suspension Bridge Company have been several days in Session at the Falls. The strength of the supporting cables is to be not less than 6,500 tons.

Charles Ellet, Jun., Esq., of Philadelphia, has been appointed engineer. The bridge will be in sight both of the Cataract and Whirlpool, and span the gorge by an arch of 200 feet suspended 230 above the surface of the Niagara River.—[Niagara Chronicle.

Extract from a private letter, dated PERCE, 21st October, 1847.

MARINE DISASTERS.—We have had, lately, some hard gales of wind on this coast, and no less than four schooners are reported wrecked at or near Fox River, by which accident two of the crews have perished.

JAMES DURAND, Esq.—We are happy in being able to announce the election, by a unanimous vote, of James Durand, Esq., to the office of Clerk of the Gore District Council.

MONTREAL AND LACHINE RAILWAY.—We are glad to see that the Montreal and Lachine Railway is rapidly approaching completion, and it is confidently expected to be opened in the last week of this month.

THE CHOLERA IN GERMANY AND RUSSIA.

Letters from St. Petersburg of the 5th Nov. state, on the authority of the official reports received by the Government, that the cholera continued to advance toward the north and east.

and on September 15th there were 583 sick at Kursh. At Woronesh, a town with a population of 44,000, the cholera broke out on the 4th of September, and 420 new cases, and 150 deaths had occurred daily.

The Journal des Debats publishes the following letter, dated Vienna, the 10th inst., announcing the appearance of the cholera in that city:—

"The cholera has already caused a victim among us. On the 7th inst., a person died in the general hospital of that malady. We trust that it is an isolated case, but nothing, nevertheless, shall be neglected to combat this scourge, should it make its appearance.

CONSTANTINOPLE, Oct. 7.—Since the equinoctial gales have set in, the cholera has disappeared from Trebizond. It has, however, broken out at Bagdad. Baron de Weymar, the French consul at that city, was again attacked by the terrible epidemic, but has since recovered.

MEXICO. MORE FIGHTING AND MORE VICTORY! CAPT. WALKER KILLED.

New York, 12th Nov.,—7 P. M.

The steamer New Orleans arrived at New Orleans on the 7th inst., with dates from Vera Cruz on the 31st, whole number of train escort 5000 men and 229 wagons.

Gen. Lane arrived at Perote, and was joined there by Capt. Walker and his command, who took march to Huanautla. A sanguinary engagement took place in its streets, between Walker's force, 250, and the Mexicans, 1600.

Gen. Lane arrived at Perote, and was joined there by Capt. Walker and his command, who took march to Huanautla. A sanguinary engagement took place in its streets, between Walker's force, 250, and the Mexicans, 1600. Resulted in the total expulsion of the enemy, and occupation of the town by our troops, who only lost six men—among them Walker, killed by a father, enraged at the loss of his son.

COBOURG MARKETS. Nov. 17.—Wheat, 3s 9d; Flour, 25s; Oats, 1s to 1s 3d; Rye, 2s to 2s 6d; Rye, 2s 6d to 3s; Potatoes, 1s 3d to 1s 6d; Butter, 7d to 8d; Hay 30s to 37s 6d.—Star.

Toronto Market Prices.

Table with 4 columns: Nov. 20, s. d., a. d. Items 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, Poultry, Bacon, Hams, Lard.

Prospectus of the 2nd Volume OF THE "Canada Farmer."

A FAMILY JOURNAL OF AGRICULTURE, INTERNAL IMPROVEMENT, LITERATURE, SCIENCE AND GENERAL INTELLIGENCE. Published every other Saturday at R. Brewer & Co's Establishment, Toronto; and is now offered at the exceedingly low price of ONE DOLLAR per year.

The FARMER was established to supply a want that has long been felt in the periodical literature of Canada. On the one hand, a majority of the weekly publications devoted their exclusive attention to the politics of "party," a few to Religion and kindred topics, and on the other, our "magazine" poured out its novelties stores on the grand, inexhaustible, and vitally important subject of Canadian Agriculture!

Although it is impossible to treat of public questions without, in some sense, writing politics, yet the "Farmer" has not meddled with "parties" nor will it hereafter less scrupulously avoid them. Its objects are the interesting, the useful, the necessary. As Agriculture is the interest of first importance to the people of Canada, so is it awarded the first place and the chief attention in the columns of the Farmer. Emigration, Commercial regulations, Education, Legislative enactments, and all questions bearing on the industrial pursuits of the country come under impartial review. Short notices of useful books &c., literary selections, entertaining, instructive and moral; the improvements and discoveries in Science and the useful arts; a dish for the Ladies, and Scraps for the boys; the markets at home and abroad, with the general news of the day, complete the bill of fare to which we invite the attention of every family, in every town and township of Canada.

The 1st volume has met with unexpected favor from the public and the Press. The encomiums of the latter, so liberally bestowed, would have consoled the Editors with the belief that their labours were not in vain. But the substantial support of the public has been such as to warrant us, we think, in continuing the publication.

The 2nd vol. will be superior to the first in several points. More time will be given to it by the Editors, and a number of persons of the highest qualifications have promised their assistance as correspondents. A number will be sent as a specimen to any one requesting it by letter (or otherwise) POSTAGE PAID. All orders should be sent in by 1st, or at latest by 5th January, so that we may know how large an edition to print. The unexpected demand for back Nos. exhausted our edition of the 1st vol. some time since, and to prevent such an occurrence again, we hope our Agents and all others will send forward their orders without delay. Subscription \$1 in advance. Toronto, November, 1847.

Advertising Department.

WM. McDUGALL, Attorney-at-Law, Conveyancer, &c., &c. Toronto, Canada West. (Office, North side of King Street East, opposite Post Office Lane.)

JAMES MANNING, Land & General Agent, Conveyancer, &c., &c., &c. Office, No. 2, Wellington Buildings, KING STREET EAST, TORONTO.

OFFERS his services to the Public, as House and Land Agent, and as Agent for the transaction of any other business that may be entrusted to him, in the Purchase, Sale, or Leasing of Property, and business of every description relating to Landed or House Property; the collection and prosecuting of claims, and procuring of Titles under the Heir and Devisee Act, &c., &c. Deeds, Mortgages, Leases, Wills, Bonds, and other instruments drawn, and engrossed, with accuracy and despatch, and on moderate terms. He will also attend to the sale and purchase of Bank and other Stock, collection of Rents, Debts, &c.

Land Scrip Bought and Sold, Petitions or Memorials prepared; claims upon Government, and all business connected with the Crown Land, and Clergy Reserve Offices, attended to. J. M. assures those who may intrust their business to his management, that it will be faithfully and punctually attended to. He begs to refer, for integrity and ability, to J. H. Price Esq., M. P. P. Joseph Workman, M. D. and J. Beatty, Esq., Toronto, and Benjamin Holmes, Esq., and John Young, Esq., of Montreal.

Letters Post-paid, addressed to J. M., Toronto, will be attended to.

NOTICE.

ALL persons having in their custody or possession any MONIES, GOODS, CHATTELS, or EFFECTS, heretofore belonging to DECEASED Emigrants, or now belonging to SICK Emigrants, are hereby required, without loss of TIME, TO DELIVER THE SAME to the undersigned, who has, by order of His Excellency the Governor General in Council, dated the 25th day of October, instant, been daily empowered to receive such Monies, Chattels and Effects JOSEPH CARY, Deputy Inspector General. Montreal, 25th Oct., 1847.

Farm for Sale.

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

Price considered unprecedentedly low. Application may be made to the editors of the Canada Farmer, or to the subscriber on the premises. LEVI WILSON.



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

All Losses promptly adjusted.

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

EMIGRANT CONVALESCENT HOUSE, 1st November, 1847.

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

WILLIAM RAMSEY, Superintendent.

Toronto, Nov., 1, 1847. 455- All the city papers to give three insertions.

To Physicians, Surgeons, &c.

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

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

Board of Health, Office, Toronto Oct., 25, 1847. 458- All the City Papers to give three insertions.

CROWN LAND DEPARTMENT. Montreal, 10th March, 1846.

NOTICE is hereby given, by Order of His Excellency the Administrator of the Government in Council, to all persons, who have received Locations of Land in Western Canada, since the 1st January, 1832, and also to parties located previous to that date, whose locations were not included in the list of unpatented lands, liable to forfeiture, published 4th of April, 1833; that unless the claimants, or their legal representatives, establish their claims and take out their patents within two years from this date, the land will be resumed by the Government, to be disposed of by Sale. 404

BOOKS FOR THE PEOPLE.

CHAMBERS'S MISCELLANY, or TRACTS FOR THE PEOPLE, 19 vols. This is one of the cheapest and most interesting publications issued from the press. Each volume may be had separately, and is complete of itself.

SELECT WRITINGS OF ROBERT CHAMBERS, 6 vols.

SUBJECTS OF THE VOLUMES.

- Vol. 1 & 2. Essays Familiar and Humorous. 3. Do moral and economic. 4. Essays on Philosophical subjects, poetical, Essays, and Historic sketches. 5. History of the Rebellion of 1745-6 & Traditions of Edinburgh.

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 patronised 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 reference in the City.

Workman Brothers & Co.,

No 36, KING STREET.

- OFFER FOR SALE:— 60 tons English Iron, 20 tons Best Iron, 20 tons Swedes Iron, 15 tons Hoop and Band Iron, 10 tons Sheet Iron, 3 tons Plough Shares, 2 tons Wagon Boxes, 2 tons Cast Steel, 3 tons Blister Steel, 1 ton Spring Steel, 1/2 ton Eagle Steel, 2 tons Camp Ovens, 2 tons Bellied Pots, 5 Blacksmith's Bellows, 60 Blacksmith's Vices, 15 "Hill's" warranted Anvils, 120 Sugar Kettles, 40 Potash Coolers, 10 boxes "Pontpool" Plates, 25 Box Stoves, 21 to 36 inches, 450 casks Cut Nail, 50 casks Wrought Nail, 20 casks Patent Pressed Nail, 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 Saws, 40 Philadelphia Mill Saws, 40 "Fairbanks'" Platform Counter Scales.

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

18 PACKAGES OF SHEPHERD & BIRMINGHAM Shelf Goods,

With an Assortment of American Hardware. Toronto, 25th March, 1847.

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GENERAL MERCHANT—WHOLESALE.

IMPORTER OF HEAVY HARDWARE, Birmingham Sheffield and Wolverhampton SHELF GOODS, EARTHENWARE, and GLASSWARE, in Cases and Hubs.

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Together with a select Stock of STATIONERY, English, French & German Fancy Goods, Combs, Bells, &c. &c. &c. Toronto, Nov., 1846. 1-6m.

Notice.

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

Brewer, McPhail, & Co.,

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

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

Drug & Medicine Business,

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

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

Toronto, 9th March, 1847.

Fairbank's Platform and Counter Scales.

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

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

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

WORKMAN BROTHERS & Co.

Toronto, 22nd March, 1847.

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-

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.

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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 Pendant and Invariant, 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, Grating, and Side Drains, or 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.

THE

Canada Farmer,

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

TERMS:

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

Advertisements inserted on the usual terms.

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

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

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

AGENTS FOR "THE CANADA FARMER."

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

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James Willson, Wm. A. Stephens, Jeremiah Sovereign, and David Curtis, jr.