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THE CANADA FARMER.

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

Vol. I. TORONTO, SATURDAY, AUGUST 11, 1847. **No. 15.**

HISTORY AND TRADITIONS OF SHORT HORN CATTLE.

(Continued from page 101.

It was conceded by a company of old breeders in 1842, in discussing the question of the improvement of Short Horns, that no stock of Mr. Colling's breeding ever equalled "Lady Maynard," the dam of Phœnix, and grandam of Favourite. One cannot deny that the Messrs. Colling deserve great credit as breeders, and were no doubt improvers to a considerable extent; but if the above statements be true, they are fat, very fat indeed, from being the *creators* and *originators* of the best tribes of the Short Horns. They strike us as having been sharp shrewd men, and were fortunate in securing the best animals of their day, and these, so long as they continued breeders, they kept exclusively to themselves. We saw a letter of Mr. C. Colling, when in England, written in a handsome round hand, declining to give the pedigree of an animal asked of him, and stating it was a general rule with him, from which, if our memory serves us right, he added, he had never departed, and his movements (as indeed are most of those of the breeders in England even at the present day, were shrouded in as much mystery as it was possible to assume.* If they see an advantage in their stock, they at once determine to keep it as exclusively as they can, and make the most possible out of it. Perhaps as they cannot get any patent right for animals, this is all fair enough as the world goes, and for one we do not complain, since they left the *results* for the world.

Great antiquity is claimed for some of the stock in Northumberland, and as early as 1770, a Mr. Dickson, and probably some others, had cattle that were famous milkers, and much resembled in other particulars the Short Horns of the present day, being quick feeders and good handlers. We might enlarge upon this subject, but perhaps have already said too much, and therefore forbear. Enough is on record to prove what we at first set out so do, namely, that the Short Horns are of an ancient and superior race; and it is undeniable throughout Great Britain, that when the good milking and quick feeding qualities of any breed of cattle are sought to be improved, the Short Horns are universally resorted to, and when properly selected, always with marked success. We saw these crosses in infinite number on the cattle of Ireland, Scotland, England and Jersey; and the colours and form of the Short Horns immediately stamped themselves upon the produce and predominated, which is proof indisputable, if other were wanting, of their great antiquity and high breeding.

The dam of Hubback was supposed to be a well bred Short Horn, with at least a portion, if not all of the imported Holland blood† in her veins. Her size was barely medium for a Short Horn, with a carcase near the ground. And very fine in all her points. She was a quick feeder, and would keep in good condition though running on the poor, short pasture of the common highway, and giving milk at the time. According to Mr. Berry's account, when put upon good pasture near Darling, she soon become too fat to breed, and was consequently sent to the butcher. She was originally owned by Mr. Hunter near Hunworth, and there bred to Mr. Snowden's bull, of Sir James Pennyman's stock, and that produce was Hubback. When a calf, he and his mother were sold in the Darlington market. The purchaser retained the cow, but re-sold the calf to a blacksmith, who gave it to his daughter after her marriage, and it was brought up in the lanes at Hornby, within 5 miles of Kirkleavington. In 1783 it became the property of Mr. R. Colling, and his neighbour Mr Waistell, but it was not till a year after this, that Hubback attracted Mr. C. Colling's particular attention. He had then just returned from spending a week with the celebrated Mr. Bakewell, at Dishley, who at that period, was in the zenith of his glory as a breeder, and doubtless gave Mr. Colling many a good lesson on Cattle, for upon getting back to Durham, he instantly saw how superior Hubback was to the much vaunted Long Horns of Leicestershire, and was at once aroused to his great merits, and immediately very adroitly bought him for £8 8. of his brother and Mr. Waistell, and would never after permit him to breed to any but his own herd. Hubback was a remarkable quick feeder, with clear waxy horns, mild, bright eyes, and a very pleasing countenance. His handling was superior to any bull of his day: his coat was of soft downy hair, and he had a habit of retaining it long in spring before sheding. He had the same propensity to take on flesh as the dam, and with Mr. Colling's good keep, soon became useless as a breeder.

Bolingbroke, (86), son of the celebrated bull Favourite (252), took on flesh rapidly, and in other respects was much like Hubback.

Favourite, his son, was a large massy animal, partaking of the character of his dam Phœnix, than that of his sire. He possessed remarkable good loins, and long level hind quarters; his shoulder points stood wide, and were somewhat coarse, and too forward in the neck; his horns also, in comparison with Hubback's, were long and strong. These qualities were derived from Mr. Hill's stock of Blackwell, to which, though several crosses off, he seemed to breed directly back in all his general characteristics. He was a powerful animal, and of great constitution. As a proof of this last quality, Mr. Colling used to show with great pride a fine large heifer from him, of direct in and in breeding, of sire to daughter, grand-daughter, and so on to her, of the sixth generation. His bull calves were generally like himself, a trifle coarse, but of good constitution.

Comet was the most celebrated of his get, and sold for 1,000 guineas. It was the stock of these two last bulls that brought the Short Horns into so great repute.

Phœnix, the dam of Favourite, was a large open boned cow, with more horn, altogether coarser than her dam the beautiful Lady Maynard. Both Phœnix and Old Johanna had the fat lumps on the points of their buttocks, that formerly for a time carried off the prizes at the Yorkshire Cattle Shows. But these critical remarks are exhausting the patience of our readers.

To say that we admired Mr. Bates' stock, is only reiterating the opinion of many of the best judges in England. It particularly excels in handling and feeding qualities, and he informed us that in milking they were quite equal. He has hitherto been more successful than any other breeder, in obtaining prizes at the Royal Agricultural Shows, and whether he continues so hereafter, remains to be seen. It is both troublesome and expensive showing stock, and perhaps satisfied with the honours already obtained, he may now retire from further competition.

* This was also eminently the case with the celebrated Blakewell.

† We have heard it asserted, that this stock was originally sent from England to Holland about two centuries since, as a present, by Charles I. to William, Prince of Orange, then Stadtholder, at the time of his marriage with the daughter of Charles, the Princess Henrietta Maria. From this produce a century after, Sir William St. Quintin and others made their importations. Mr. Bates had some of the same in his possession, which he called the Wild Eyes breed of Short Horns. They were originally pure white, and it is this tribe which is supposed to have marked the Short Horn families generally, and not the Wild Cattle of Chillingworth Park, as asserted by Mr. Youatt in his work on British Cattle; for these last have white brittle horn, a dull, sluggish, ferocious eye, and other characteristics totally different from any known Short Horn.

MANURES.

(Continued from page 102.)

SHOVELLING OVER THE COMPOST HEAP.

The above remarks may be called our Compost Heap. It must be well shovelled over. You must, reader, before you cart it out and spread it, understand well what this compost contains. Now just let me turn over a few shovels full, and fork out the main points to which I wish to call your attention.

1st. That all plants find in stable manure everything they want.

2nd. That stable manure consists of water, coal, and salts.

3rd. That these, water, coal and salts, consists in all plants of certain substances, in number fifteen, which are called,

1. Oxygen, 2. Hydrogen, 3. Nitrogen, 4. Carbon, 5. Sulphur, 6. Phosphorus, 7. Potash, 8. Soda, 9. Lime, 10. Magnesia, 11. Alumina or clay, 12. Iron, 13. Manganese, 14. Chlorine, which last, as we have said, forms about one half the weight of common salt, 15. Silex. And if you always associate with the word chlorine, the fertilizing qualities of common salt, you will, perhaps, have as good an idea of this substance as a farmer need have, to understand the action of chlorine.

4th. These fifteen substances may be divided into four classes.

1st. The airy or gases, oxygen, hydrogen, nitrogen, and chlorine.

2nd. The combustibles, carbon, sulphur, and phosphorus.

3rd. The earths and metals, lime, clay, magnesia, iron, manganese, and silex.

4th. The alkalies, potash and soda.

You may be surprised that I have not turned up ammonia, but this exists in plants as hydrogen and nitrogen.

5th. The term salt includes a vast variety of substances, formed of alkalies, earths, and metals, combined with acids. Fix well the meaning of this term in your mind, and remember the distinction pointed out, that some salts are volatile, and not quick in manure, and others are fixed, and act slower.

6th. When the plants die or decay, they return to the earth or the air these fifteen substances. These returned to the earth form the mould, which thus is composed of carbon, salts, and water, is natural manure.

7th. Mould consists of two kinds, one of which may be, and the other cannot be dissolved by water. Alkalies put it into a state to be dissolved, and in proportion as it is dissolved, it becomes valuable as a manure.

8th. If any manure contains only water, carbon, and salts, any substance which affords similar products may be substituted for it. Hence we come to a division of manures into natural and artificial. The consideration of these is the carting out and spreading of our compost. And we shall first consider in detail the natural manures.

That is, those which are furnished us by the dung and urine of animals, and the manure or mould formed by the decay of animal bodies or plants. These are truly the natural manures, consisting of water, mould and salts. This is all that is found in cattle dung. This being premised, we may divide manures, reader, for your more convenient consideration, not by their origin, but by their composition. We may divide manures into these three classes: First, those consisting of vegetable or animal matter, called mould; Secondly, those consisting chiefly of salts; and, Thirdly, those consisting of a mixture of these two classes. And, beginning with the last first, we will now proceed to the consideration.

CARTING OUT AND SPREADING.

The general chemical information set forth in the preceding Sections will be of service to you, reader, if it conducts you not beyond the result arrived at in the close of the last Section, that cattle dung is composed of water, mould, and salts.

You want to know what salts, and how they act. If you understand this, you may be able to say beforehand, whether other things, supposing their nature understood, can take the place of the mould and salts.

The mould, then, of cattle dung, as of all other mould, contains the following substances:

The water, consists of oxygen and hydrogen.

The mould consists of carbon, oxygen, hydrogen, nitrogen, and ammonia.

Thus it is seen, that the mould contains all the substances found in the first class into which elements of plants were divided. The salts contain the sulphur, phosphorus, and the carbon as sulphuric, phosphoric, and carbonic acids, and the chlorine, as muriatic acid or spirits of salt.

The acids, formed of the elements of the fourth class of the substances, entering into plants, are combined with those of the second and third classes, namely: the potash, soda, lime, clay, magnesia, iron, and manganese. Here then we have all the elements of plants, found in cattle dung. Let us detail their several proportions. We have all that plants need, distributed in cattle dung, as follows:—

In 100 lbs. of clear cattle dung, are	
Water	83 0
Mould, composed of hay	14 00
Bile and Slime	1.275
Albumen, a substance like the white of an egg	.176
Salts, silex, or sand	14
Potash, united to oil of vitriol, forming a salt	.05
Potash, united to acid of mould	.07
Common Salt	.08
Bone Dust, or phosphate of lime	.24
Plaster of Paris	12
Chalk, or carbonate of lime	.12
Magnesia, iron, manganese, clay, united to the several acids above	.14
	100

WHEAT—ITS PROPER MANURE.

How can one best increase the elements of wheat in soils where such elements are lacking.

This is a question of great practical moment. To show, in the first place, what one acre of land can do, where Science had supplied it with each element used by nature in forming this invaluable plant, as far as such elements were lacking in the soil, we ask the reader's attention to the following facts:

Says Mr. Colman:—"It is well attested that a crop of wheat grown in Norfolk county in the same year (1845) produced 11 quarters, 2 bushels, 3 pecks per acre, that is to say, 90 bushels, 3 pecks per acre." The evidence of the truth of this statement being satisfactory to the Royal Agricultural Society, its Council directed Prof. Playfair to make a critical analysis of the soil that produced this remarkable

crop. He did so, with the following result:—

Organic matter.....	2 43
Hydrate water, ...	2 60
Carbonic Acid..	0.92
Silica..	81 26
Per oxide of Iron, ...	3 41
Lime,.	1.28
Alumina,.....	3,58
Sulphuric acid,.....	0 09
Phosphoric acid,...	0.38
Magnesia,.....	1 12
Potash,.....	0 80
Soda,..	1.50
Chlorine, ...a trace.	
Loss on analysis,..... ...	0 63
Total, ...	100.00

In so small an amount as 100 grains, this soil shows an appreciable quantity of each element, (14 in number,) found in perfect wheat plants. And yet, four-fifths of the soil is nothing but silica, or pure flint sand. The proportion of silica is about the same as we find in our best wheat soils in Wheatland. It differs from them in containing more *soda, potash, phosphoric acid;* while the amount of lime, magnesia, alumina, oxide of iron, and cholrine, correspond very exactly with the results of our own analysis. We have, however, never so small an amount of organic matter (vegetable mould) a 2½ per cent. The fact that over 90 bushels of wheat can be grown on an acre with so little organic matter in the surface soil as 2.43 per cent. is worthy of mature consideration by those that desire to prepare their land for producing large crops of wheat at the least expense. It is not *vegetable*, but *mineral* matter that soils lack to give a large yield of plump wheat. An abundance of mould will increase the growth of *straw*, but not of *grain*. To promote the growth of the latter, no one thing is so valuable, as a general rule, as that of *bones boiled to a powder in strong lye*. To this the addition of gypsum and common salt will be of great service. The phosphate of lime contained in bones is an indispensible ingredient in forming the seeds of the wheat plant. The gluten in grain contains sulphur, which the sulphate of lime (gypsum) will furnish. The plant also needs potash, soda, magnesia, and Chlorine; all of which the common salt, and ashes leached to obtain lye, will supply. The liquid excretions as well as the dung of animals, abound in elements most useful in forming wheat. But an excess of manure will be ruinous to the crop. And *why* this is so, let us now consider. Suppose, for an experiment, one should make 2,000 lbs. of ripe wheat, including both straw and grain, into a heap of manure for feeding a second crop of wheat plants. Let this manure be spread over the ground eight or ten inches deep, so that the plants would have to organize their tissues, seed, &c, from the appropriate elements contained in the manure. Could a large yield of good seeds be thus grown? We think not. Why not? Every thing the kernels of wheat need, as well as all that the stems and leaves require, would be present in great abundance. The difficulty is this: Nature designs that this plant shall derive from the *atmosphere*, through the medium of its roots and leaves, a large portion of the carbon, nitrogen, oxygen, and hydrogen, used in organizing its seed. Hence, to feed wheat plants with an excess of these elements in rotting manure, is to inflict a *surfeit* and *disease* upon the same. All organized beings, whether vegetable or animal, may be injured more or less, by having an excess of nutrition thrown into their systems. Wheat can endure this surfeit far less than corn, oats, or barley. There is a *natural limit* beyond which we cannot force any plant or animal, by the use of its most appropriate food. But in regard to wheat culture, we are far behind the maximum of product consistent with the highest profit. Something can be gained on most farms, by the droppings of domestic animals, applied directly to wheat fallows. They are not generally too rich for a dose of barn-yard manure; especially if it be well rotted, and contain an admixture of gypsum, salt, ashes, and lime. Don't spare the clover seed, the plaster, nor the leached ashes, where you wish to enrich your soil.

From the Genesee Farmer.

Do varieties of Plants have a period of natural existence, and cease to live, like Individual Plants and Animals?

This has become a question of great practical importance, as well as one of much scientific interest. A majority of Physiologists regarding the existing Potato malady, which prevails so alarmingly in Ireland and Great Britain, as the effect mainly of constitutional weakness, in varieties of the plant, indicative of the approaching extinction of such varieties, on the face of the earth. The loss of vital energy has been increased, and hastened, it is believed, by the practice of an unnatural and injurious course of cultivation. Mr. Rogers, of Dublin, whose researches are published in the Mark-Lane Express, and received with respect and commendation, attributes the decay and widespread dissolution of potatoes, to the general custom of allowing them to germinate and form sprouts, of greater or less length, which are broken off before planting. The production of these germs, or rather their growth or waste, consumes a portion of the vital force, as well as nutritive elements of tuber, which are utterly lost to the succeeding generation. In any single crop the loss is of course not great; but carried through many successive generations, the injury can hardly fail of being very disastrous to the constitutional vigour of the emasculated, or mutilated race As the disease prevails to some extent in our own immediate neighbourhood, and has received attention and study at our hands last season, and the year before, we venture a few suggestions in addition to those made by the distinguished Irish chemist.

When the germ or seed of a tuber begin to organize the elements that surround it, and fully develope a new living being, nature provides it with a peculiar nitrogenous substance called *diastase*.—This substance is not unlike the fluid found in the stomachs of young animals, called gastric juice, or rennet, which aids in dissolving their food. It has the remarkable power of converting 2,000 times its weight of *insoluble starch* in potatoes, or seeds of grain, into a *soluble gum*, to nourish and build the embryo germ into a perfect plant. After the first leaves are formed, nature having no farther use for diastase, it ceases to exist. To sprout a potato in a warm cellar or pit, and break off the sprout, is to waste this vital agent, so indispensible to the healthy nutrition of a new living being. Mr. Rogers has found by experience that potatoes are exempt from rot, if planted late in autumn, and never disturbed in the spring, but cultivated as if planted at the latter season.

It has long been a source of deep regret to us that the study of vegetable physiology, and of the diseases incident to cultivated plants, is generally so little relished, and so unpopular, in the farming community. Hence we write every sentence that relates to this science, in the fear of not being understood, of exciting the disapprobation of many of our readers. But we must still crave their indulgence, while we pursue the discussions of this subject a little farther.

The premature development of the germs of potatoes is only *one*, and that perhaps the least injury, which thoughtless cultivators inflict on this invaluable plant. They omit to place within reach of its roots those *alkalies* and alkaline earths, without which, no healthy and perfect tubers can be formed. According to the most reliable analysis an acre of potatoes, tops and roots, weighing 7,870 lbs. dried, require in their organization 193 lbs. of pure potash and soda. Ashes and common salt will supply these elements; but the others are also needed, which a little gypsum and bones will furnish.

Nothing is more certain than the fact that, to withhold from any being, whether vegetable or animal, its appropriate food, is to impair its constitution, and expose it in an eminent degree to become diseased and destroyed by injuries, whether by insects or other agents, that would fall harmless on well fed, strong, and healthy systems. A violation of the laws of organic life will be fatal, sooner or later, according to the extent of such violation, not only to particular beings, but to the *family* in which the injured individual is a connecting link beween the past and the future. From this cause, many families in the highest class or genus of beings, that of man have become extinct, although once endowed with great vital force. For wise purpose, God destroys families that, from generation to generation, consume more than they produce, in idleness, extravagence, and vice. This is doubtless done to make room for the expansion of families, distinguished alike for their industry and temperance, and the physical, moral, and intellectual strength which labour and virtue always confer. If we view human action in its proper light, it will be found impossible, in the order of Providence, for man to inflict injury upon others, even on a potato plant, greatly needed as it is by the poor, without bringing on himself or his offspring a greater injury. But it is unnecessary for us to moralize on this subject; although morality and agriculture are more intimately connected than many suppose. Without any especial violation of natural laws, we have no doubt that varieties of plants as well as animals will one day cease to have any living representatives on the earth. The researches made in that department of Geology called Palœntology, which investigates fossil plants and animals, leave no room for doubt in regard to the extinction of many races, that have flourished for thousands of years on the globe. Hence, our able cotemporary, Mr. Beecher, editor of the Indian Farmer and Gardener, expresses a general truth too strongly when he says in a recent article,—"Any *one tree* may wear out; but a *variety* never." A family of plants, or a variety of such family, may endure for indefinite ages. But in the ceaseless progress of time, an epoch will arrive when this family, like all the the extinct families, from the recent mastodon downward, will have no living representative to perpetuate its lineage.

We cannot dismiss this subject without remarking that constitutional weakness in the potato plant can be remedied as well by propagation from the genus in the tuber, as from the seeds in the ball. The vital principle is as feeble, as much exhausted in the one organ of the being that forms embryos, as in the other. If vitality be lacking in the germ found in the potato or tuber, it cannot be more abundant in the seed. If plants germinated from seeds appear more healthy and vigorous than those from the tuber which gave the seeds, it is owing to extraneous circumstances, better care keeping, less exposure, or some other incident. Unwise culture is only the the predisposing cause of the potato rot; while the active agent exists unseen, and unappreciable in the atmosphere. like "the pestilence that walketh in darkness." We have good reason for the remark that, by supplying the crop with the precise ingredients required to form it, in its perfect state, and at the same time avoiding the bad practice of sprouting before planting, the peculiar malaria, insect, cryptogamic, or parasitic plant, or whatever else may complete the work of destruction, will pass harmless over the potato field.

CANADA FARMER.

August 14, 1847.

MR. BUCKLAND.

We learned the other day, with surprise, that this gentleman has been in Toronto nearly a month. If he expects to do any thing in Canada—to be looked up to and respected as an intelligent labourer in the field of agricultural improvement—to be regarded as a thorough go-ahead, independant man, who has come here to take up his abode and hereafter to consider himself a Canadian, he must not keep *hid up* in this style, nor surrender himself into the hands of any man or set of men, nor go about negociating for gifts, grants, assistance or favour, from Government, but must strike out boldly for himself and trust to luck and to the just unexceptionable claim which merit gives—that claim which the man who *has done something* at a personal sacrifice can prefer. The principle of making appropriations of the people's money to advance private enterprizes, especially *before* they are undertaken, however much the *public* may be interested in their success, will not be sanctioned. At all events a large party would oppose it, and the result would be distrust of the objects, and disregard for the benefits of such enterprizes.

We have understood it to be Mr. Buckland's intention to establish an agricultural school and Model farm in this vicinity. It is also said that he is a candidate for the Chair of Agriculture (when it is established) in the University. He can hardly accomplish both objects. The former we believe would succeed, if established on an independant untramelled footing. It would probably be necessary that Mr. B. should spend a year in studying the character, wants and capabilities of the country. The latter will be a failure so far as the public are concerned. It may be bolstered up by public money; the Professor may pocket his salary very comfortably every year but as to any practical benefit to the Farmers of Canada it is "all in my eye." They will never send their sons whom they intend for farmers, to a University to learn their business. A hundred objections would be raised at once. Their being required to send them into the city would of itself be enough; besides, the antagonisms—the conflicting elements in the very nature of the thing would cause it to explode in a short time. A few pupils might be found among the sons of "gentlemen" farmers, as they are fond of being called, but we believe their ranks would soon grow thin. This is not the way to promote improvement in farming throughout the Province, nor have we much idea that it will be attempted. The University will very likely be settled on an improved basis at the next session; the improvement being the removal of the Theology Professorship, and a reconstruction of the Board of Management, with one or two other minor alterations. This seems to be in accordance with the opinions and wishes of the majority of both political parties, and we venture to say of the majority of those who are not particularly connected with either. The seperate establishment in each District of a Grammer School, with an Agricultural department and model Farm attached, will no doubt be provided for from other sources, and we shall then want a model Farm and a model Institution near Toronto, presided over by such a man as Mr. Buckland, to prepare teachers for these various District schools, and to instruct the sons of the enterprizing farmers of the Home District in the theory and more correct practice of their art. This will furnish a field sufficiently large and varied for one man.

THE POTATO INSECT.

The potato rot has been ascribed to a hundred different causes, each of which in the opinion of its propounder was sufficient to account for the evil. An insect has been the great destroyer in the opinion of many persons; but this insect has assumed as many shapes as Proteus, and its colour is as variable as the chamelion's. One time it is a long white worm or grub scarcely perceptible to the eye in the substance of the tuber; another time it is in the stalk in a different form; now it is a small black insect (in this neighborhood) which punctures the leaf. Every unfortunate fly or grub that has been seen in the vicinity of a potatoe patch has been apprehended and without being allowed to give an account of himself or even to prove an *alibi*, has been thrust into the box, and condemned as the guilty "individual"—the audacious *varmint* that had killed the "praties" in every country of the earth; at St. Petersburgh and at the Cape of Good Hope; in the "Islands of the Sea" and throughout the continents of the old and new world! This omnipresent, felonious outlaw, underwent a critical examination by ourselves yesterday morning, and

though we were forced to acquit him "for want of evidence," yet on the principle of the jury who brought in the man charged with murder, *guilty*, because they knew *he had stolen a horse*, we thought, that as he undoubtedly was making a great many holes in the leaves, and otherwise misbehaving himself, all the *sulphur, brimstone smoke, ashes*, and *soot*, &c., that had been adjudged to be his portion, was quite good *enough for him!*

The insect that is now seen on the potatoe leaves in such numbers, has been compared to a flea, in its "habits and appearance." It is about as much like a flea as an apple is like a potatoe. And as for its "habits" they are totally dissimilar. In appearance it is black, about the length, but thicker and rounder than a flea; it has six legs and two *antennæ*: it appears to hop from leaf to leaf but it is furnished with a pair of wings and wing cases. We examined it with the naked eye only, and from its *habit* (a very bad one) of preying upon the green leaf, it must belong to the *Mandibulata* or masticating insects—(the flea belongs to the *Haustellata* or *suctorial* class, and has no wings,) and is of the order *coleoptera*, or beetle. The notion that *this* insect causes or has caused the potatoe disease is simply, absurd. That they injure the plant more or less according to the extent of their depredations upon the leaf, is no more than what experience and common sense will tell any one. We have already given our opinions about the disease, but as many persons, the readers of the *Cultivator* especially, may imagine this little "gentleman in black" to be the man, we would advise every one to have an eye to the potatoe field. If they should see him at work, and *no disease should follow*, we think a *negative* will be proved at last, and justice will demand that we enter a *nolle prosequi*.

—o—

THE HESSIAN FLY.

(Cecidomyia destructor.)

HOW TO PREVENT ITS RAVAGES.

The importance of an acquaintance with every fact connected with the history and character of this insect must be apparent to every farmer of intelligence. We greatly fear that from the apathy and disinclination to adopt measures of improvement, or indeed anything out of the usual course, which characterize so many of the cultivators of the soil, no general or efficient steps will be taken to prevent the otherwise certain increase of this most destructive of the insect enemies of man. We shall, notwithstanding, discharge our duty in the matter and leave no excuse on the score of ignorance to those who may read the Canada Farmer. It is now certain that the Hessian Fly in the chrysalis state, is at this moment to be found in the wheat fields of all the older townships of Canada West, and in sufficient numbers to stock every township in the Province before the end of '48, and to cut off all the common varieties of wheat. That such a result will not happen, no one who is acquainted with the former ravages of the Hessian Fly can with any confidence expect. It can only be averted by a prompt and general action on the part of the wheat growers in every part where the Fly has appeared, or by some remarkable changes of weather, or peculiar condition of the atmosphere, during the coming winter and spring which shall have the effect of destroying the eggs. The latter we may hope for, but cannot calculate upon.—The former is within our power; but for want of unanimity and immediate action, will not be successful.

In addition to what we have already published, we insert the following from a *Rochester* paper of standing, which strengthens the views we have urged upon our readers in former numbers. It must be remembered that our American neighbours speak of the Hessian Fly from experience.

"The second generation of this most destructive insect makes its appearance in this latitude during the two last weeks in September. The fly does not live more than ten or twelve days. It sometimes hatches a little earlier, and at others a little later than the time above indicated. If there were no young wheat plants within reach of the perfect insect at the period of its maturity, on which to deposit its eggs, in September or the first week in October, all must perish without providing for the appearance of another generation in the spring. As all summer crops are out of the way in autumn and winter rye is but little cultivated, and may be sown late even better than wheat, the Hessian fly can be wholly exterminated, by delaying to seed till after the 20th September. Late seeding should be practised by all wheat growers simultaneously, for the 20 acre field of one farmer sown before the 10th September, may sustain *larvæ* enough to come out perfect insects in April, or the first week in May, greatly to injure a thousand acres in the surrounding country. All insects, and especially the *tipula*, increase with wonderful rapidity. If a man should raise ten thousand wolves and let them out to destroy the sheep and cattle of the community, he would hardly do more injury to the public than to sow 50 acres in wheat *early*, in a town where the Hessian fly is known to exist, and thus raise countless millions of these destroyers of bread.

We are well aware that on many soils, late sown wheat suffers greatly by the heavings of frost, which separates the root of a small plant from the surrounding earth and destroys it. Under-draining and open water courses will obviate this difficulty. Admitting the full force of danger from winter-killing, still the loss from that cause is nothing when compared with that which results from multiplying Hessian flies in a wheat growing country a hundred fold. The frost usually injures only portions of a field; and even when the damage extends over its whole surface, it never spreads like winged insects within ten or twenty miles.

The subject is obviously one of great importance. Those that think of seeding early to avoid injury from frost, and to give their wheat a good start with numerous roots, before winter sets in, should remember that they need only nourish till spring, a few minute worms, to have their grain nearly destroyed in May and June, by the vast numbers of the next generation.

Rolling with a heavy roller was tried by a large wheat grower in Wheatland last fall to kill the larvæ, by crushing them against the stem where they lie, but with little or no good result. This field was on the Genesee bottoms, and sown the first week in September, contrary to our advice. Its crop is now nearly destroyed by insects, and will give to Monroe county far more Hessian flies the coming autumn, than is desirable.

It is not a bad practice to sow a land early through a fallow that all the insects in the neighbourhood may come and deposit their nits, which should be ploughed deep into the earth where not one of them will ever come to maturity. After this the field can be seeded in the usual way. No application to the seed sown will have the least effect to keep off the fly. In the spring, it will deposit its ova on the leaves of the oats, barley, and spring wheat, as well as on the winter varieties of the latter plant. Hence it is much more difficult to prevent propagation in spring than in autumn.

Burning the stubble after harvest, has been recommended and practiced to some extent. This can seldom be done without destroying the young clover which the farmer has on the ground. No skilful wheat grower thinks of omitting to seed often with this renovator of the soil, aided, as it should be with a coat of gypsum, lime, ashes, and salt. Where the land is not seeded, or the clover has come badly, burning the stubble will be advantageous in more ways than one.

To escape the ravages of the Cecidomyia *destructor*, for it is indeed a *destroyer* without a parallel among the insect depredators upon the fruits of rural industry, we urge upon the wheat growers of Western New York, the propriety of delaying to seed till after the 20th September.

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HOW TO LESSEN THE EFFECT OF THE FLY—AND DROUGHT.

We clip the following from a report of proceedings at a late meeting of the Farmers' Club, New York. The mode of lessening the depredations of the Hessian Fly does not tally exactly with the doctrine of a sapient cotemporary, that manure *produces* this insect:—

"Mr. Meigs then read the following:—'Previous to the revolutionary war, Suffolk county, on Long Island, was so reduced in fertility as to yield, on an average, not more than five or six bushels of wheat to the acre. The Hessian fly often destroyed even that, but it was said to be lessening, for it was discovered that when the land was *properly enriched, the fly did little damage*. Many began to manure their soil, and obtained large crops.

From the proceedings of the "Agricultural Society of England" Mr. Meigs read that Mr. Bennays said that if the land on which the artificial manures were applied, were, in dry weather, strown with a top-dressing of *chloride of calcium* (muriate of lime made by adding spirits of salt to chalk), no drought can affect the crop, which is thus increased to a marvellous extent.

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To the Editors of the Canada Farmer.

Peterboro, July 26th, 1847.

GENTLEMEN:—When I addressed you lately on the culture of Linseed I followed very much the rule of the projectors of railway schemes, but with more certainty I trust in jumping at once to the profitable results. In doing so of course I left all the important details in the process, from the first preparation of the land for the seed, to others, who may be induced to step forward and favour us with practical information of its management in all its stages. Especially do I cherish the hope that Agricultural Societies at their meetings will take it up as a leading subject for discussion, I fear not but they will arrive at a satisfactory conclusion. And that these societies will find encouragement to appropriate a part of their funds to the establishment of a crushing machine in a central part of each society's bounds, to be afterwards extended as the culture increases, to each Township. Another profitable crop which would be found to answer well in Canada, is the common horse bean, which is so extensively cultivated in the mother country. It covers in fact a portion of every well managed farm; without it there would be deficiency in the proper rotation of crops, and a preparatory step lost in the profitable cultivation of wheat and barley; as either of these generally follow, and the land is then in fine condition for seeding down at the same time with grass. The bean is sown in drills sufficiently wide apart to admit of a one horse plough being once or twice used before the bean is in bloom, and a very little extra trouble and expense would thoroughly clean the ground of every weed, thus superceding a summer fallow, and adding much to the annual produce of the farm. The deep ploughing between, in part confers the benefit of subsoil ploughing, and will also be felt as a means of drainage to the land. In many districts of the old country the cultivation of the bean has been of late extended as a substitute for the potatoe, and an excellent substitute it is; more especially the broad white bean which with bacon forms a dish so justly famous; and moreover, both will pay well as articles of export.

Another consideration not generally known, is, that the field bean may be sown in this country in the fall just before the frost sets in. I have authority for stating that the crop will in that case be more abundant. The Agricultural societies will surely bestow attention upon products suitable for exportation. They would thereby benefit the country far more than by showing up the *same bull* or *ram* year after year at an expense to the society, and discouragement to competitors for the first prize. But we must look forward to much good from these societies. It is in fact a duty *incumbent on them* seeing the Legislature attends to so little of vital importance in forming the *ground work* of the country's future prosperity. The first step they should take in my opinion, is, as a vacancy or general election affords opportunity, that each District Society send one member at least to Parliament, and if their President so much the better. A body of sound headed practical men would be formed joined to the commercial and other leading interests which would command the respect and cordial support of the country, and silence of those more eloquent and practiced tongues who waste the time of the house, glorying in their strength and drawing foolish comparisons between the Imperial and the Colonial Parliaments. They may be men of metal, and many of them worthy of high respect in their own sphere but *they are out of it* for the nation's good, as much so as would be sounding brass if applied to every purpose. *Our House* ought to have material capable of constructing a board of Agriculture, Commerce and Revenue, Health and General Improvement, with just opposition enough, to be when combined a Board of Controul. From such a house would emenate very different bills from those lately propounded. Some seem at varience even with common sense, and little or nothing is to be found indicating the collective wisdom of a country like this—the issue of a long debate hangs upon a thread; is just as uncertain as a *law suit* and the actors seem quite as much at *home*. A toss up would answer quite as well, taking care the coin bore the impress of the Queen's head to give the whole affair a *smack* of loyalty. Such may appear at first sight rather a wide digression in addressing the editors of an Agricultural Journal, but it only requires a little consideration and the less, as it becomes more apparent every Session, how much this country may be check'd in its progress by the *people* taking their Representatives almost *en mass* from one class, and that one by no means the most likely to supply the best statesmen to guide the country's onward progress.

Apologizing for the length of this letter,
I am, Gentlemen,
Respectfully yours,
A. SCOTCHMAN.

NEWLY DISCOVERED USE OF THE SUNFLOWER.—Those most experienced in the cultivation of this plant are sanguine that, with proper soil and proper cultivation, *it is more profitable than wheat or corn*. The seeds are more oleagnious than those of the flax plant, and combine the qualities for *table use* of the best olive oil; for *burning*, of the best sperm, without its smoke; and for *painting*, it is said by painters who have used it, to be superior to linseed, and it is more rapid in drying, equally easy in spreading, and without forming a much denser coat. Prepared and eaten as artichokes, the young cups of this plant are very esculent and pleasing to the palate; the stalks are an excellent substitute for hemp or flax, and for the bee pasturage it is equal to any plant, yielding from its luscious and numerous nectaries, an abundance of the best and most palatable honey. A writer in one of our agricultural exchanges, says that, on suitable soil, with proper cultivation, it will yield on an average from eighty to one hundred bushels of seed to the acre. From five to seven quarts of oil are calculated on, per bushel. If this is not over-estimating its productiveness, if it can be raised as cheaply as wheat or Indian corn, ordinarly considered the most expensive crops cultivated, the Sunflower must be a very profitable production. We, have, heretofore, cultivated it on a small scale, usually in vacant spots, by the fences and in places where the cultivation of other vegetables was inelligible, and so far as our experience goes, it corroborates the above assertions. We find that the green leaves are very excellent fodder for cows, especially when the feed in our pastures gets low in seasons of scarcity and drouth. We generally commence plucking them in July, taking the the lower leaves first, and feeding them out at night, or, if the scarcity of feed is great, in the morning before turning them from their yards. We have sometimes given them corn-toppings and the leaves of the sunflower at the same time, and have found that the latter are invariably preferred. The seed of the Sunflower is a most desirable food for poultry, its highly oleaginous nature wholly supercedes the necessity of auimal food.—[Ex.

NEW USE OF ETHER.—A friend at Concord sends us the following account of a new and successful experiment with "Ether:"—

Friend R.—I administered the "Ether" to a very vicious, ugly horse to-day, and she was made so impressible by it that any operation might have been performed upon her without any apparent sensibility.

Mr. Bigelow, our blacksmith, told me sometime ago that one of the stage horses, which he was obliged to shoe, from some cause would keep up such an incessant violent kicking, biting and squealing, that it was not only troublesome but dangerous to shoe her. I told him to let me know when he shod her again, and I would give the ether to her I did so to-day, and two minutes after I applied the ether to her nostrils, she was as quiet and harmless as a sheep, and was shod with perfect ease and safety. The horse was as bright as ever afterwards.—Lowell Cour.

TO REMOVE DUST OR MOTES FROM THE EYE.—Fill a cup or goblet with clear cold water, quite to the brim, and place the eye in distress in such a position as to be completely within the water in the cup; then rapidly open & shut the eye a few times, and the dust or mote will be immediately washed away. If a cup or other vessel be not at hand, the eye may be placed in a spring or bucket of water.

TO FIX AMMONICAL GASES IN VAULTS.—The most effectual substances that can be employed for the purpose of attracting ammonical gases, are green vitrol or common copperas (sulphate of iron) and sulphuric acid. A pound of either of these substances, diluted in a gallon of water and thrown into a vault, will immediately render it inodorous.

THATCH.—On the roofs of houses, thatch may be rendered incumbustible by a common flame, by coating it over with a mixture of white-wash and alum. One pound of alum will suffice for five gallons of white wash.

Civil and Social Department

EMIGRATION AND COLONIZATION.

We are relieved from a state of unpleasant suspense by the intelligence in late English papers that all the projects and Government schemes for the above purposes have been abandoned. The great number of emigrants who have sought our shores without the stimulus of extraordinary government assistance, the awful sufferings they have experienced, the thousands that have died and will die, and the misery and pestilence that they are spreading over this colony, have attracted the attention of Lord Grey and the Ministry, and convinced them "that it would have been most unwise to endeavour to relieve the sufferings of Ireland by giving any extraordinary stimulus to emigration this year, and that emigration had without such stimulus progressed to the extent of the capabilities of the colonies to receive." It is certainly true that we have received to the "extent of our capabilities" of the pauper class—of those who, in the language of the *Times*, "have been accustomed to connive, and *two* months' labour out of twelve," and what is to become of them during the coming winter we cannot tell. They have crawled into all the vacant hovels and pig-styes in the country; in many cases whole families have died, and though they have not wanted for food, yet no one except perhaps a doctor, would venture within the door. We know instances of farmers having set fire to these buildings after the poor wretches had died or left them, so great was their fear of the infection. People are unwilling to hire even those who are able to work, (and they are very few) because in this country labourers *usually lodge under the same roof and eat at* the same table with those who hire them, and such close contact with emaciated, cadaverous looking emigrants, just from the Hospital or fever shed, is by no means thought desirable. What then, we ask again, is to become of those whom sickness may leave to meet the rigours of a Canadian winter with nothing but crazy old stables and log shanties to shelter them! We have indeed received of this class to the extent of our capabilities, and heaven knows what the consequences might have been had government added 50 or 100,000 more of a class still worse. The selfishness of Irish landlords and their unwillingness to look at the *causes* of their country's misery—to listen to any remedy that will go to the foundation of the evil, are well illustrated in some of the speeches in Parliament. A great cry is made about the "better" class of persons who are emigrating, and they wish government assistance to send out the "poor"! *They* are good enough for Canada! We are glad to find that for the present their barbarous and unprincipled designs are frustrated. Canada would be ruined—no person of respectability would remain in it, who could get away. Not one in a hundred of this better class of emigrants, whose departure from their own country is so much lamented, comes to us now; and under a government colonization scheme, they would *all* go to the United States.

It is some guarantee that we shall not be swamped all at once by having the helpless, diseased and filthy masses of oppressed Ireland emptied upon us by Government, in order to gratify their Irish lordships, to find such sentiments as the following in the "Leading Journal of Europe," the London *Times*. This powerful organ reflects the views of the most influential classes in England, and must be regarded as high authority on such subjects as the present. After showing the abuse which these gentry have made of the word "colonization," the *Times* remarks, on the speech of Lord Monteagle:—

But though the right word was used, it did not follow that the right thing assumed its right place in his Lordship's mind. On the contrary, the very first words of his speech showed that something else was uppermost:—"*Of the advantage to Ireland* of the adoption of *of an extensive system of colonization* there could be no doubt." A channel which is made exclusively for the advantage of the place whence the water is to flow is a drain. The New River was not made for the benefit of Hertfordshire, nor the Regent's Canal solely for the advantage of Brentford. They are not drains. On the contrary, the great Paddington sewer is meant for the advantage of Paddington, and of all the other localities in its course in proportion as it flows away from them.—The Bedford Level is made for the good of the fens from which it flows. Both these are drains. This is the real character of Lord Monteagle's colonization, though, of course, he found it necessary to talk of the colony and the colonist. And when his Lordship had done, and Lord Grey, as a responsible man and a statesman, had very properly directed the attention of the House to the legitimate objects of colonization, Lord Fitzwilliam, with all the instinct of an Irish proprietor, interfered to correct what appeared to him this unseasonable aberration of debate. "His noble friend, he said" had adverted very little to the condition of Ireland, which was one of the most important elements of the question." The condition of Ireland he proceeded to describe with an admirable simplicity. It was the mass of the people just now, where there were no potatoes, who are anxious to emigrate, and the Landlords are not less anxious to get rid of them. Unfortunately, as Lord Fitzwilliam said, neither party had the means; the peasantry had not the means to go, nor the landlords to send. So he concluded that the State should make haste and avail itself of the golden opportunity, before a good potatoe crop shall have resuscitated the Irishman's attachment to his native soil, to get a few hundred thousand across the Atlantic, or safe at its bottom, as Providence may direct. "Make hay while the sun shines," that is while there are no potatoes.

The great difficulty with which Lord Monteagle had to contend was, that he was urging a great increase of emigration from a country which is notoriously not over populous, in comparison with its industrial resources, whose population does not increase in any unusual ratio, or even so fast as in England, and which is, at this moment, and has been for many years, the most emigrating country in the world. The regular emigration from Ireland, with its eight or nine millions, is very much larger than that from England with nearly twice as many. Already Ireland is sending to America rather more than the latter likes to receive, and quite as many as the capital either of the States or of our Colony can employ. Lord Monteagle recognised the fact of a large emigration. "He by no means contemplated superseding the present system of voluntary emigration, under which it appeared that between 1825 and 1846, no fewer than 1,400,000 had emigrated from the United kingdom to our Colonies and the United States." Bye and bye, he observed, "Every one knew that emigration on a vast scale was now going forward—emigration of an extraordinary and increasing character."—He also referred to hundreds of letters in his possession, and quoted some, in proof of an increasing assistance from the successful emigrant towards bringing over his friends, and a regular correspondence across the Atlantic with this view. Why then should the State interfere, in the face of that universal law to which the recent history of Ireland has given so melancholy a prominence; viz.: that the State cannot interfere without doing almost as much harm as good! The answer is exceedingly simple. The State is to send out those and those only whom the landlord wants to get rid of—those whose room is better than their company—those who do no good in Ireland, and therefore will do well in Canada. The present emigration contains too large a portion of farmers, and good working men; too responsible and helpful; too sure to get on everywhere, even in Ireland. A State emigration conducted on true Parliamentary principles at the moderate cost of £10,000,000, will act like a sieve, keeping at home every man of snew and substance, and bestowing *our refuse on America. On the other hand*, the emigration now going forward, his Lordship feared,

"Was of a kind that, so far from relieving, would greatly increase the evils of which just complaints are universally made. *The emigration from Ireland was now assisted by capital of the people themselves who have emigrated*, and unfortunately the effect of it would be to deteriorate the condition of the poor. *He found that the greater part of the emigration that had taken place had been from the class of employers rather than from the employed.*

The State, then, is to make judicious selection for the purpose. To a rising colony like Canada, it is presumed capital, industry, skill, and thrift, are matters comparatively unimportant. It only wants men—anything to call a man. Mendicants by family, constitution, education, and habit, will of course make good settlers. The same raw material will do for workhouses and backwoods. They who have been accustomed to connive and two months' labour out of twelve are just the men for the forest. It is the "surplus" that Lord Monteagle wishes to dispose of at the national expense. Herodotus describes a market of wives in the East, in which the beautiful and accomplished fetch a good price, out of which dowries were provided to push into consumption the inferior articles. Lord Monteagle is not quite so fair. He does not propose that the landlord shall help out the worthless as the price of retaining the good. He wishes *us*—the British public—working as we do—encumbered as we are—to be at the expense of forcing the inferior commodity into the Colonial market. *That*, in fact, is the gist of his proposal.

Such being the case, common sense, common justice, the evident wants of the colonies, and we may add the uniform custom of this country, suggest but one reply. The Legislature, acting for the colonies and for the general interest, can only help to send out the best possible men. It must pick and choose, not the worst, but the best. So it has always done in this island. If the proprietor wishes to relieve his land, he can choose the most burdensome and send them away with their several portions out of his own private pocket. If he sets about doing so in earnest the State may possibly give him some little assistance. But, as attempting to make Canada the sink of Ireland—one Ireland in the world is enough. England has sins enough to answer for. She has to answer for her penal settlements, and has no occasion to try new varieties of human degradation in pauperizing and perhaps "repealing" British America.

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CAPITAL, LABOUR, AND IMMIGRANTS.

That very few emigrants possessed of capital seek a home in Canada, is to many matter of surprise. There are various causes which contribute to produce this state of things: the evil consequences of which are *exhibited in the continual cry of* "*want of* capital," to carry out this and that public and private enterprise. When we take into consideration the circumstances of thousands of tenant farmers in England, men of capital and intelligence; when we see their utter dependence on the owners of the soil; the great difficulty they experience in possessing themselves of farms when accident or caprice dispossesses them. When we know that the tendency of their position is downward, that their hope for the future is mingled with dispair; and the prospect for their family cheerless and uninviting: when all these things are taken into account, we do not wonder at the almost universal surprise that exists on this side of the water at the want of energy which prevents the effort that would for ever release them from this state of anxiety and dependence, and place them on the road to affluence. The mere want of energy will in part only account for this singular fact. Will nothing but present poverty induce them to emigrate? Must their circumstances approach the point of desperation before they turn their attention to the new field for the exercise of their industry, which Canada and other colonies of England afford? It would indeed appear so. The spirit of colonization is extinct and the colonies are only regarded as a poor refuge for the destitute. How long is this state of things to continue? We have every confidence in the influence of *truth*, by the dissemination of which alone can the evil be remedied. English farmers of ordinary intelligence, and considerable capital, have generally very limited information upon every thing which relates to the colonies. This want of information, accompanied with an unpardonable degree of self-will, often results in the ruin of that small class of English farmers of capital who do emigrate. It is this failure arising from a want of information that prevents a larger proportion of the same class from committing themselves to the fortunes of a colony where, if not failure, ill-success has attended the efforts of the few with whom they were acquainted, who made the experiment. Emigrants of this class must learn that Canada is not England, and that if they attempt to adopt the same system of farming in every respect which they may have pursued in England even with success, they will risk a disappointment involving the shipwreck of their fortunes. The circumstances of the country must be taken into account. *Individual industry* is, in every new country, a most important element of success. Of this fact there is an abundance of evidence observable all around us. Persevering and well-directed industry, even when unassociated with the advantage of capital, seldom almost never fails of success. If the emigrant who has no capital to begin with but his labour, can, in every case, by industry and economy secure a competence, and even wealth, how much surer, how perfectly certain is the guarantee that he will succeed, who with his industry, combines the advantage of a moderate capital, *if both are properly controuled and directed*. If English farmers, of moderate capital, who can make no provision for their families, who are the helpless dependants of their landlords, and may be thrown upon the world at any moment which may suit the convenience, gratify the caprice, pride, or malignity of the latter: if they would consent to learn before they act; to study the nature of the climate and the capabilities of the soil, rather than attempt to set up a standard of their own without reference to these circumstances; if to these precautions they would add the exercise of steady personal industry, *they must* better their condition in every possible sense by emigration to this Colony.

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FLOUR AND MEAL.—The last number of Blackwood's Magazine contains an interesting paper from Professor Johnson, the celebrated Scotch Agricultural chemist, upon the comparative substance in coarse and fine flour; and the point he seeks to establish is that whole meal—or flour containing the whole ingredients of the wheat—is not only more healthy but more profitable than fine flour from which the bran, &c., is extracted. The gist of his argument is, that there are three ingredients in the human body which need constant nourishment—viz: fat, bone and muscle. The vegetable food we consume contains these substances almost ready formed. Flour from wheat contains these in larger or smaller proportions, according to to quality—less in fine, more in unbolted; and the food must be most wholesome which contains these ingredients most abundantly. The Professor proceeds by a formidable array of analytical demonstrations, to prove how much richer the whole meal is than the fine in the three above mentioned essential substances. The following table contains all the facts that are necessary, exhibiting at a view the quantities contained, respectively, in 1000 lbs. of whole meal and fine flour:—

	Whole Meal.	Fine Four.
Muscular matter - -	156 lbs	130 lbs.
Bone Material - - -	170 "	60 "
Fat - - - - - - - -	28 "	20 "

"Taking the three ingredients, therefore, together," says the Professor, "the whole meal is one half more valuable for fulfilling all the purposes of nutrition, than the fine flour"—and especially is it so, he adds, to children, to mothers, and to those who undergo much bodily fatigue. "It will not be denied," he argues, "that it is for a wise purpose that the Deity has so intimately associated, in the grain, the several substances which are necessary for the complete nutrition of animal bodies. The above considerations show how unwise we are in attempting to undo this natural collocation of materials. To please the eye and the palate, we sift out a less generally nutritive food,—and to make up for what we have removed, experience teaches us to have recourse to animal food of various descriptions."

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The condition of the emigrants and the situation of the farmers in this part of the country presents some very singular anomalies. The emigrants, many of whom are broken down in health, without self-trained habits of industry and unacquainted with much of the labour to be performed in a new country, demand higher wages than men born in the country and capable of performing every description of farm labour, can be obtained for. These demands are resisted by the farmers, many of whom during this

harvest are greatly in want of assistance; and some of them complain that efficient assistance is not to be obtained. The emigrants are very much deceived as to their own capabilities and the value of their labour. Unprincipled parties, who pretend to be their friends, do much to deceive them on this point. The country could absorb an immense amount of emigrants if they were all capable of labouring efficiently, and willing to take reasonable wages.—*Examiner.*

Literary Department.

SIR JAMES ROSS'S VOYAGE IN THE SOUTHERN AND ANTARCTIC REGIONS.

In 1838 the British Association for the advancement of Science, passed some resolutions on the importance of having a simultaneous series of magnetic observations; and suggested the localities in which they should be made, as well as the points to which attention should be directed. The regions pointed out by the resolutions fitted for stations were Canada, St. Helena, Van Dieman's Land, and Mauritius, or the Cape of Good Hope; the desirableness of having similar observations made "in the high Southern latitudes, between the meridians of New Holland and Cape Horn," was also suggested. The points to be regarded in the magnetic observations were the "three elements of horizontal direction, dip and intensity, or their theoretical equivalents, as also their hourly changes, and, on appointed days, their momentary fluctuations." A committee was appointed to press the subject upon the Government; and the council of the Royal Society (the acknowledged advisers of Government in matters of science) having strenuously supported the views of the association, the undertaking was resolved upon. At the same time, it was considered that Antarctic exploration might be combined with magnetical observation. Two vessels were accordingly fitted up with all the precautions and provisions necessary for a voyage in those high Southern latitudes, and placed under command of Sir James Ross. His leading instructions were to land the observers and their instruments at St. Helena, the Cape and Van Dieman's Land; to establish himself for certain periods at certain places in the Southern Seas, to carry on the magnetic observations on shore; and in the intervals of time to endeavour to penetrate toward the South magnetic pole, or to pursue such other objects of discovery as should seem best in his direction.

Besides making the passage out and home, with occasional visits to New Zealand, Van Dieman's Land and New South Wales, Sir James Ross remained some time at the Falkland Islands and St. Martin's Cove in the immediate vicinity of Cape Horn, for the purpose of scientific observation, or to refit. His most interesting voyages, however, were three in number, and all directed toward high Soutern latitudes. In the first, skirting the more Eastern discoveries of Bellany made in 1839.* Sir James Ross penetrated beyond the 78th degree of South latitude; discovered a seeming continent, (laid down on the latest maps as Victoria Land); and traced it from the 70th to the 78th degree of latitude. He was then stopped by a perpendicular barrier of ice from 150 to 300 feet in height, and of course above the mast heads of the vessel, so that nothing could be distinctly seen beyond it except in one place; nor could it be reached. This barrier too was examined, as well as the difficulties of the season allowed; the position of the magnetic pole was determined, and approached within 160 miles. A spot was sought where the expedition might winter, and attempt an overland expedition in the spring to "plant the national flag" on the South magnetic pole, as Sir James had previously done upon the North: but the approach of winter, the formation of ice on the sea, and the manner in which loose pieces quickly became a congealed mass, compelled the expedition to return. This voyage was made in the Northern winter of 1840–41 the summer of the Southern hemisphere. As far as mere distance goes, the explorers penetrated about seven degrees beyond Cook's farthest, and about three degrees and a half beyond Weddell in 1823.

Such progress was not made but under favorable circumstances both of accident and season. In latitude 66 ○. 55 they encountered a "pack," through which they had to force their way for upward of two hundred miles; but after that the sea was comparatively clear, and the navigation comparatively easy, till they approached the region "where, in a season of the year equivalent to August in England, the thermometer was at 12 ○ and the presence of icicles alone gave the idea that it ever thawed. We say comparatively, because the navigation was still beset by the difficulties incidental to those high latitudes; icebergs crowding the ocean, and involving incessant caution, fogs and snow storms often turned the day into night; a passage sometimes had to be made through newly formed ice, by cutting away or rolling the ships boats upon the mass; and at one of the worst points of the voyage, "the waves, as they broke over the ship, froze as they fell on the decks and rigging, and covered our clothes with a thick coating of ice, so that the people suffered severely during the continuance of the gale," although before the middle of the Southern August. Nothing, in fact, but the previous experience of the commander and some of his people, with the extraordinary preparation of his ships, enabled the navigators to take advantage of the favorable circumstances in which they found themselves.

The second voyage, made with the object of following out the previous discoveries, was less successful; but the perseverance equally great, the hardships and dangers very much greater. They made but thirty miles in one week, even before crossing the Antarctic circle, on account of a calm, a fog, and snow storms. They were entangled at an early period in a pack of ice, whence they never emerged for a thousand miles; but sometimes forced their way through it when the wind served and the ice permitted; sometimes drifted with it backward and forward as the pack itself was swayed by the Antarctic storms; sometimes stood to and fro in a space of open water or made a little way, each vessel fastened to the opposite sides of a floe of ice, to avoid accidents or parting company. Yet, though nothing was done as regards actual discovery, the nautical maxim of pushing on to the very last illustrated in a remarkable manner the importance of not yielding to difficulties.

"The setting-in of winter now required us to bring our operations in the higher Southern latitudes to a close, and seek a more temperate climate in which to pass the winter. And although our hopes of extended discoveries during the season had been frustrated by our protracted and tedious detention in the pack and the difficulties of penetrating a mass of more than a thousand miles in thickness had been overcome by the perseverance and exertions of my companions; still the time that was consumed in that laborious and fatiguing work left us only a few days of the worst part of the season to pursue our purpose. We had however, during that brief space attained a somewhat higher latitude than last year; we had traced the continuation of the barrier (of ice) ten degrees of longitude farther to the Eastward, and extended our researches over a large portion of the hitherto unexplored parts of these regions; an amount of success which, while struggling in the pack, few of us could have anticipated."

The third voyage only penetrated to 71 ○ 30. on the same parallel as Weddell's (10 ○ to 20 ○ of West longtitude.) when a pack of ice and the advanced season prevented all efforts to proceed further. As close and extensive a survey as the weather in that region permits had previously been made of the Shetland group, latitude about 62 ○ to 64 ○ and West longtitude 50 ○ to 70 ○, including Graham Land, and the Terre Le is Philippe, discovered by D'Urville.

In voyages of this kind the first object is scientific facts, and an accurate report of them; which, of course, somewhat interferes with popular attractiveness. The soundings of the ocean, its temperature at different depths, the observations of currents, the bearings of objects, the variation of the magnet, and the minute detail of other facts and phenomena, however interesting and suggestive to the geographer, (and they are highly so,) have only an occasional attraction for the public at large; while their continual repetition, which is an absolute necessity, interferes with the narrative and flattens as well as suspends it. The formality and retinue of official responsibility increase lengthiness by the detail prescribed and the formal compliments apparently required. Notwithstanding these necessary drawbacks, the volumes before us are in the main attractive even to general readers. There is the excitement attached to voyages of discovery, and the interest attending hardships borne and dangers and difficulties overcome. The Antarctic scenery is rather enumerated than described, for the style of the book is somewhat literal; but still it is there. The enormous icebergs standing on the ocean; the still ice-fields stretching away in every direction, or clashing and grinding under the influence of the storm; the mountains cased in eternal ice, and the wintry desolation of the frozen continent, are all indicated to the reader in the narrative of adventure.

There is, of course, continual risk; sometimes terrific danger—as when a collision took place between the ships close upon an iceberg, and life hung upon the accidents of a moment; or the vessels, embayed in a pack during a gale, which forced the masses of ice against or over each other, drove helplessly about with damaged rudders; and nothing could be done but to hold on and wait the end. Some of the scientific facts are curious; and though the reports of the proper officers on the botany, geology, &c., may rather incumber the narrative, they give a variety, and often contains bits of generally interesting description.

A controversy both as regards claims to discovery, and, what is of much more importance, to fair dealing, is half raised in the work, in reference to the late disputes between the French and Americans as to their right to the credit of certain discoveries of patches of land between the 65th and 67th degrees of South latitude and the 13th and 14th of East longitude; and in which controversy, Wilkes, the commander of the American exploring expedition, wished to make out that the English were taking a part. In our notice of the second and third volumes of that work, we entered so fully into the question of national claims, that a tabular synopsis of the subject will be sufficient here.

Navigators.			Land discovered.	
Date.	*Name.*	*Nation.*	*South Lat'*	*Lon.*
1831	Feb. .. Biscoe.	English.	66 deg.	44 deg. East.
1832	Feb....Biscoe.	do.	67 deg.	72 deg. West
1839	Feb . Bellany.	do.	67 deg.	161 deg. East.
1839	March..Bellany.	do.	65 deg.	121 deg. East.
(These were the extremes of Bellany's discoveries. He sighed, or supposed he sighted, land between the two points, along the line of the French and American discoveries the following year.)				
1840	Jan & Feb D'Urville. French.		66½ deg.	140 deg East
1840	Jan & Feb D'Urville. do.		65 deg.	130 deg East
(This last was icy cliffs, supposed to cover land, and named by D'Urville, "Cote Claire.")				
1840	Jan & Feb, Wilkes. American		62 deg to 67	97 deg to 167 deg East

☞ The latitude and longitude are given in round numbers, as no point whatever is involved in *exact* position. It should be observed that the French and American discoveries *were* made in ignorance of Bellany's, and of each other's.

The priority of days between D'Urville and Wilkes is not easy to settle, because it is not easy to tell what actual land Wilkes really did discover; but in the verified places the Frenchmen seems to have been the first, and there is no doubt as to his superior accuracy of proceeding. When he has verified land he marks it as land; when he finds ice cliffs, but considers them as a covering of land, he so distinguishes them—"Cote Claire;" when he infers a thing, he lays it down as suppository—"Isle supposed." Wilkes on the other hand, with true go-ahead precipitation, lays down every thing that loomed like land as land, and seems to have connected intermediate places that were not seen. At all events, while Ross was at Van Diemand's Land, Wilkes sent him, from New Zealand, a letter, of very general advice, and a chart of the alleged American discoveries, in which a *continuous* coast line is traced from the 97th to the 167th degrees of East longitude, with a latitude varying about five degrees (62 to 67.) The first use Ross made of the chart was to avoid the longitude of the French and American discoveries, to sail nearly twelve degrees further South, and to discover Victoria Land and the icy barrier. The next use was to *sail over* the Easterly extremity of Wilkes land on his return.

We have seen by the extracts how easily the inexperienced or even the experienced navigator is deceived by the appearance of land in these high latitudes; and the history of men is full of men misled by apparent signs of land, under clearer skies. The mistake is natural enough, and reflects no discredit upon Wilkes as a mariner; but laying down lands in the way he did is conclsive as to his character, as a scientific explorer and discoverer, whatever may be thought of him as a seaman. It is a graver charge than any errors in observation or shortcomings in science, that though he knew of one if not both of Bellany's discoveries, when he sent the chart to Ross, he omitted all mention of his name; but when Ross had sailed over his alleged land, he turned round and declared that it was an English discovery which had been falsified—though Bellany's Islands had been seventy miles off, besides having been verified by landing; and in his published narrative Wilkes suppresses all mention of Bellany's discoveries. In future the Americans must be more cautious what officers they send on scientific expeditions.—[London Spectator.

TRADE IN GODS!—Strange and even profane as this title may sound, it is a literal fact. *La Democrate Pacifique* states that there is a wharehouse in Paris with the title "Dupot for African Gods!" The firm of Regis carries on an extensive business with Senegal, where there are about as many kings as mediæval Italy had princes. These African kings make war by way of a little pleasant excitement. When one of them has lost a battle he dismisses his "Gods," and orders new French ones from Regis & Co., who employ artists to make them of deal, with serpents' heads, lions' manes, and tigers' claws. When a Senegal potentate obtains a consignment of new "Gods" he goes to war in order to test their efficacy. Hitherto Regis and Co. have been lucky in their "Gods."—[True Sun.

AN ENGLISH PEER.—The Duke of Northumberland—one of the richest peers in Great Britain—died last month quite suddenly in his bed, of influenza. A foreign correspondent of an American paper says of the event:—It is an awful thought to reflect that all the enormous wealth of this nobleman—the descendent of the renowned Percys—with an income averaging him £2,000 to £3,000 daily, perfectly unincumbered—could not procure a single hand to close his eyes, or which he might have grasped and breathed farewell. His Grace died without issue, and is succeeded in his titles and possessions by his brother Lord Prudhoe. Though not a man of great abilities the late Duke held the high office of Chancellor of the University of Cambridge. He also had been Lord Lieutenant of Ireland, Ambassador to the Court of St Petersburg, and special envoy to France at the coronation of the ill fated Charles the X. During the embassy he refused to receive money for outfit, or any thing else; though a diamond hilted sword worth £10,800 sterling voted to him by the House of Commons, he subsequently accepted. During the whole time that he remained in France, he had independent of retainers, three hundred gentlemen of birth in his suite. As he progressed through France to Paris he scattered gold among the crowds that surrounded his train of equipages at every post-town. His wife was governess to Queen Victoria. The remains of the Duke was interred in Westminster Abbey, in the tomb of the Percys, and with royal state.

NERVES OF THE HEART.—The New Orleans Commercial Times states that an interesting discovery has recently been made by Dr. Lee of that city. It says:—"The doctrine that the heart was wholly devoid of nerves *(cor nervis carere)* and was a *stupidum et insensibile viscus*, which obtained, we believe, at the close of the last century, had already been modified by later authorities; but until Dr. Lee commenced his inquiries it was generally supposed that the nerves were very few in number; it was considered that the organ performed its important functions with little or no nervous action. Dr. Lee's inquiries are stated to establish not merely the existence of numerous hitherto unnoticed nerves in the heart, but also the curious facts, that these nerves increase with the increase of the organ; and that the nerves on the left side are more than double the size of those on the right. This latter circumstance is accounted for by the difference in the functions of the two sides, it being the office of the left ventricle to disperse the blood through the whole body by means of the arteries, while that of the right ventricle is merely to transmit it through the lungs to the left auricle—an operation obviously requiring a less vigorous pulsation, and consequently less nervous power, than that of the left ventricle. This discovery may be regarded as the complement of Harvey's doctrine of the circulation of blood."

THE DISTRIBUTION OF CARBONIC ACID IN ROOMS FROM THE BURNING OF CHARCOAL.—It is commonly supposed that the carbonic acid resulting from burning charcoal in a brazier remains as a heavy stratum of vapor upon the floor of an apartment as it does upon the floor of the "Grotto del Cane," and that no danger is to be apprehended in entering the appartment if a person stand upright; but this notion is seriously erroneous, as the chemist can prove. In fact, as carbonic acid is formed during the combustion of charcoal, it is materially *lighter* than air, because it is of an exceedingly high temperature, or, in other words, rarefied by the heat; and, accordingly, says the "*London Builder*," it ascends in virtue of this thermal levity, and bends uniformly with the air of the apartment, while another curious action is simultaneously ensuing, viz.: the charcoal, in order to burn and to continue burning, must have oxygen—it takes this from the air to form carbonic acid, but leaves the nitrogen, which is equally mephitical, so that, in the course of a very short time, if no egress be permitted for these substances so inimical to life, the entire volume of the air becomes thoroughly vitiated, and a person entering the apartment would be suffocated.

Constant foresight is destructive of much happiness. They are happiest who can enjoy the present and leave the future to the future. However at times, this nursing of the future is most beneficial. It is especially so to the man of the world, because it leads him to include in his mundane calculations future probability and contingency, while the plodding, unspeculative man will lose by his short-sighted investments.

It is an error to suppose that domestic happiness does not require for its ingredient a large proportion of little cares and attentions. They are the soul of it. A man who says he is made for home, and is careless of little cares and attentions for his home, is under a delusion; such a man misunderstands himself; he is not made for home, for whatever else he may be adapted.

THE MIRAGE.—The following extraordinary optical allusion is described by a correspondent of the (Paris) *Journal des Debats*:—"On Friday last, between 7 and 8 o'clock in the morning, the weather being cold and clear, and while the sun was rising brilliantly, we beheld a mirage. From the point of the steeple of the Cathedral of Ulm rose a narrow ray of a dark color, almost vertical, with a slight inclination to the West. Here this ray, the image of the Upper half of the steeple of the Cathedral was designed, with its towers and all the numerous and delicate Gothic ornaments which decorate it on all sides. This image was so correct that it might have been mistaken for a representation made by the Daguerreotype. Eight times this phenomenon was repeated. Such an optical effect is unexplained in this country.

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* Bellany Islands, in about latitude 67 and longitude 164 East.

American Agriculturist—New York.—We shall hereafter take occasional notice of new Agricultural and other Standard Publications, in order that our readers may have an opportunity of judging whether their character and cost are such as to make them desirable to add to their library. The above is a monthly journal, of 32 pages, published by Harper & Brothers, New York, and edited by A. B. Allen, Esq. We have already borrowed freely from its pages, and though we have not particularly noticed the work, I have no hesitation in saying, that for the ordinary farmer, it is second to none published in the United States. There are others which aim at a higher and more scientific character, but, for general usefulness, it can not be excelled, while Mr. Allen's well informed mind and practised judgment superintend its columns. We should like it much better, however, if the editorial "we" occurred a little oftener. Since the Harpers have become publishers, the editor's pen is less used than formerly. Its correspondents are numerous and able, and reside in every State in the Union. Terms—$1 in advance. Postage added, will make it nearly one dollar and a half to the Canadian subscriber.

Farmer and Mechanic—New York.—*H. H. Starr, Editor and Proprietor.*—This is another of our exchanges that we value very highly. We are always sure to find something new and interesting in its columns. To the mechanic especially, we should suppose it would be indispensible. It contains a weekly report of patents obtained for inventions in the United States; a report of the proceedings of the Farmers' Club, American Institute, and the Mechanics' Institute, together with news and miscellaneous matter. The agricultural department is not as well attended to, and consequently not as useful as others, but the American Farmer, who is almost always *half* a mechanic must regard it with favour. We recommend this journal, which is published weekly, contains 16 pages, and is about one third less in size than the *Canada Farmer*, to our Canadian mechanics and others of inventive genius. It is generally illustrated with cuts of new inventions, &c., &c., and all for $1 per annum.

Western Literary Messenger—Buffalo—We have received No. 1 of the 9th volume of this interesting publication. It is printed weekly, contains sixteen pages of matter, and is of a convenient size for binding. We understand it has obtained a considerable circulation in Canada, notwithstanding the high charges (2d. each number) for postage. To those who are fond of light reading, and feel interested in American news—a summary of which is usually given—it is well worth its cost. Subscription, $1.50c.

Scientific.

CATECHISM OF AGRICULTURAL CHEMISTRY AND GEOLOGY.

(Continued from our last.)

V.—*Of the Inorganic food of Plants.*

Q. What substances does grain especially draw from the soil?

A. The seed of our grain crops especially exhausts the soil of *phosphoric acid*, and *magnesia*.

III. *Composition of the ash of wheat, oats, barley and rye.*

	Wheat.	Oats.	Barley	Rye.
Potash and soda,	37.72	19.12	29.50	37.21
Lime,	1.93	10.11	3.36	2.92
Magnesia,	9.09	9.98	10.05	10.13
Oxide of Iron,	1.36	5.08	1.93	0.82
Oxide of manganese,	?	1.25	?	?
Phosphoric acid,	49.32	46.26	4063	47.99
Sulphuric acid,	0.17	-	.036	1.46
Silica,	.....	3.07	21.99	0.17
	100.	94.87	9-.92	100.

[The large quantity of phosphoric acid in the above table will show that, as the grain takes out more of this than of any other substance from the soil, numerous successive crops of grain must exhaust it of this more than of any other substance.]

Q. How would you remedy such special exhaustion?

A By returning to the soil the particular substances my crops had taken out.

Q. How would you return the phosphoric acid for instance?

A. I would apply bone dust, or guano, or some other manure in which phosphoric acid abounds.

Q. But with any kind of cropping may not a fertile soil be at length made unproductive?

A. Yes, if the crops are carried off the land, and what they draw from the soil is not restored to it.

Q. How is this explained?

A. Every crop takes away from the soil a certain quantity of those substances which all plants require. If you are always taking out of a purse it will at last become empty.

Q. Then you liken exhausted land to an empty purse?

A. Yes, the farmer takes his money out of the land, and if he is always taking out and putting nothing in, it must at last become empty or exhausted.

Q. But if he puts something into the soil now and then, he may continue to crop without exhausting it?

A. Yes, if he put in *the proper substances, in the proper quantities, and at the proper time*, he may keep up the fertility of his land—perhaps forever.

Q. How much of everything must the farmer put into his land to keep it in its present condition?

A. He must put in as much at least as he takes out.

Q. To make his land better, how much must he put in?

A. He must put in more than he takes out.

Q. But if he is to put into the land as much or more than he takes out, where is his profit to come from?

A. His profit consists in this, that he takes off the land what he can sell for much money, and he puts in what he can buy for comparatively little money.

Q. How do you mean?

A. I mean that if I sell my oats and hay, I get a much higher price for them than I afterwards give when I buy them back again in the form of horse dung.

Q. Then the farmer can really afford to put as much upon his land as he takes off, and yet have a profit.

A. He can. He puts in what is cheap, and takes off what is dear.

Q. What do you call the substances which the skilful farmer thus puts into his land?

A. They are called *manures*,—and when putting them in, the farmer is said to manure his soil.

VI.—*Of the Manuring of the Soil*

Q. What is manure?

A. Anything that furnishes food to plants may be called a manure.

Q. How many principal kinds of manure are there?

A. There are three principal kinds,—vegetable manures, animal manures, and mineral manures.

Q. What do you mean by vegetable manures?

A. By vegetable manures, I mean those parts of plants which are usually buried in the soil for the purpose of making it more productive.

Q. Name the most important of the vegetable manures?

A. Grass, clover, straw hay, potato-tops, rape-dust, &c.

Q. Is green grass used for manuring the soil?

A. Yes, the soil is manured with green grass, when grass land is ploughed up.

Q. Would you bury the sods deep if you were ploughing up grass land?

A. No, I would keep the sods so near the surface that the roots of the young grain could feed upon the decaying grass.

Q. Are any other plants ploughed in green for the purpose of manuring the soil?

A. Yes, clover, buck-wheat, rape, rye, and in some places even young turnips are ploughed in green to enrich the soil.

Q. Into what kind of soil would you plough in a green crop?

A. Into light and sandy soils, and into such as contain very little vegetable matter.

Q. Is not sea weed or sea-ware a very valuable manure?

A. Wherever sea weed can be obtained in large quantity, it is found to enrich the soil very much.

Q. How is it employed?

A. It is either spread over the land and allowed to rot and sink in, or it is made into a compost, or it is put into the potato drills in a fresh state.

Q. When used in this last way does it give large crops of potatoes?

A. Yes, on the east and west coasts of Scotland it is said to give large crops of potatoes, but of inferior quality.

Q. How would you prefer to make a compost of sea weed?

A. I would mix the sea weed with earth and with shell-sand or marl, if they were to be had, and turn it over once or twice before using it.

Q. Are there any common green vegetables that are ploughed in with advantage?

A. Yes potato-tops dug in, or turnip-tops, when the roots are pulled, make the next year's grain better.

[Potato or turnip tops ploughed in make the succeeding barley or wheat crop so much better, that, about Edinburgh, the turnip tops are reckoned equal to 8 tons of farm-yard manure, or £2 an acre. It is said, however, that the clover which succeeds the grain is worse when the tops have been ploughed in,—that it is sickly, and sometimes fails altogether.]

Q. How can you get the largest quantity of green manure in the form of potato-tops?

A. By pulling off the blossoms, the tops are kept in a green state till the potatos are dug up, and thus give much green manure.

Q. In what form is hay usually employed as a manure?

A Hay is usually given to the stock, and afterwards put upon the land in the shape of their dung.

Q. In what form is straw used as a manure?

A. Straw in some places is given to the cattle—in other places it is partly given to the cattle and partly trodden among the litter—while in places again, where few cattle are kept, it is sometimes rotted with water and a little cow dung and put on the land in a half-fermented state.

Q. In what state of fermentation would you prefer putting your straw into the land?

A That would depend upon the kind of land.

Q Suppose you had to manure light land for a green crop?

A Then I would like to have my straw pretty well fermented and mixed with the droppings of a good many cattle.

Q. But suppose you were manuring heavy clay land during the naked fallow before a crop of wheat?

A I would then rather have my straw more loose and unfermented. It would help to keep my land open.

This general rule may not apply to all even of our *heavy* clay lands. Even stiff clays vary in quality, and circumstances may render inexpedient in some localities what, as a *general* practice, is the best that can be recommended.

For the Ladies.

THE PARTING OF SUMMER.

BY MRS. HEMANS.

Thou art bearing hence thy roses,
Glad summer; fare thee well!
Thou'rt singing thy last melodies
In every wood and dell:

But in the golden sunset
Of thy latest lingering day,
Oh! tell me o'er this chequered earth
How hast thou passed away?

Bright, sweet summer! brightly
Thine hours have floated by
To the joyous birds of the woodland boughs—
The rangers of the sky:

And brightly in the forests,
To the wild deer bounding free;
And brightly midst the garden flowers,
To the happy, murmuring bee.

But how to human bosoms,
With all their hopes and fears;
And thoughts that make them eagle wings
To pierce the unborn years?

Sweet Summer! to the captive
Thou hast flown in burning dreams
Of the woods, with their hopes and leaves
And the blue, rejoicing streams;

To the wasted and the weary,
On the bed of sickness bound,
In sweet delicious fantasies,
That changed with every sound;

To the sailor on the billows,
In longings wild and vain
For the gushing founts and breezy hill,
And the homes of earth again.

And unto me glad summer!
How hast thou flown to me?
My chainless footsteps naught have kept
From haunts of song and glee.

Thou hast flown with wayward visions,
In memories of the dead—
In shadows from a troubled heart,
O'er a sunny pathway shed;

In brief and sudden strivings
To fling a weight aside;
'Midst those thy melodies have ceased,
And all thy roses died.

But oh! thou gentle summer!
If I greet thy flowers once more,
Bring me again thy buoyancy,
Wherewith my soul should soar!

Give me to hail thy sunshine
With song and spirit free;
Or in a purer land than this
May our next meeting be!

Idle Daughters.—It is a most painful spectacle in families where the mother is the drudge to see the daughters elegantly dressed, reclining at their ease with their drawing, their music, their fancy work and their reading, beguiling themselves of the lapse of hours, days and weeks, and never dreaming of their responsibilities; but, as a necessary consequence, of a neglect of duty, growing weary of their useless lives, lay hold of every newly-invented stimulant to rouse their drooping energies, and blaming their fate when they dare not blame their God for having placed them where they are. These individuals will often tell you with an air of affected compassion (for who can believe it real!), that poor dear mamma is working herself to death: yet no sooner do you propose that they should assist her, than they declare she is quite in her element—in short, that she would never be happy if she had only half so much to do

Drop Cakes.—One quart of milk, large teaspoonful of saleratus dissolved in a cup of cream; to which stir in flour smoothly until a thick batter Then dip your spoon in milk and with it place your batter at short distances on a buttered pan. Very *delicate* made entirely of cream, either with or without eggs.

Buckwheat Cakes are less tough and not as liable to sour, when mixed with *salt-rising* instead of hop yeast.

Soft Gingerbread, very nice—Four tea cups of flour, two cups of molasses, half-a-cup of butter, two cups of buttermilk a cup of thick cream, three eggs, table spoonful of ginger, and the same of saleratus. Mix them altogether with the exception of buttermilk, in which the saleratus must be dissolved and then added to the rest. It must not stand long before being sent to bake.

Butter is improved by working the second time after the lapse of twenty-four hours, when the salt is dissolved, and the watery particles can be entirely removed.

To make Tomato Catsup.—Collect the fruit when fully ripe, before any frosts appear, squeeze or bruize them well, and boil them slowly for half an hour, then strain them through a cloth, and put in salt, pepper and spices to suit the taste, then boil again and take off the scum that rises, so as to leave the liquor in its pure state; keep it boiling slowly until about one third of the juice is diminished, then let it cool and put it into clear glass bottles, corked tight and kept in a cool place for use. After standing awhile, should any sediment appear in the bottles, the liquor should be poured off into other bottles, and again corked tight.

Cranberry Sauce.—This sauce is very simply made. A quart of cranberries are washed and stewed with sufficient water to cover them; when they burst mix with them a pound of brown sugar and stir them well. Before you remove them from the fire all the berries should have burst. When cold they will be jelled, and if thrown into a form, while warm, will turn out whole

Scraps.

Retort Courteous.—There was a lady of the west country, that gave great entertainment at her house to most of the gallant gentlemen thereabout, and amongst others Sir Walter Raleigh was one. This lady, though otherwise a stately dame, was a notable good housewife; and in the morning betimes she called to one of her maids that looked to the swine, and asked, "is the piggy served?" Sir Walter Raleigh's chamber was just by the lady's, so as he heard her: a little before dinner, the lady came down in great state into the great chamber which was full of gentlemen, and as soon as Sir Walter Raleigh set eyes upon her, "Madam," said he, "is the piggy served?" The lady answered, "You know best whether you have had your breakfast."—[Bacon's Apothegms.

Prompt Obedience.—Foot was in the habit of imitating the peculiar manners of General Smith, whom he introduced into his comedy of 'The Nabob,' under the name of Sir Matthew Mite. One day the General sent for Foot: "Sir," said he, "I hear you have an excellent turn for mimicry, and I find that I, among others, have been the subject of your ridicule."—"Oh," said Foot, gaily, "I take all my acquaintances off at times,—and what is more wonderful, I often take myself off."—"Pray let us have a specimen," said the General. Foot put on his hat and gloves, took his cane, made a short bow, and retreated from the house.—[Dramatic Table-Talk.

Spanish Beggars.—The queerest object in nature is a Spanish beggar; for these fellows beg on horseback; and it is an odd thing to see a man riding up to some poor foot passenger and asking alms. There is an old proverb about setting a beggar on horseback. A gentleman in Valparaiso being accosted by one of these mounted beggars, replied, "Why, sir, you come to beg of me who have to go on foot, while you ride on horseback" "Very true Sir," said the beggar, "and I have the more need to beg, as I have to support my horse as well as myself."

An Amorous Pun.—"*Who is that lovely girl!*" exclaimed the waggish Lord Norbury, riding in company with his friend.

"Miss Glass," replied the barrister.

"Glass!" reiterated the facetious judge; "by the love which men bear to women I should be often intoxicated could I place such *glass* to my *lips*."

Convinced that patience moderates every grief, the friend of a young widow, who the day before had lost her husband, conceived he could not better comfort her than by advising her *to take patience*. The widow having already within her own mind made choice of a second *caro sposo*, whose name was *Patience*, vivaciously asked, "What! has he mentioned it to you?"

News Department.

BILLS ASSENTED TO BY THE GOVERNOR GENERAL.—We give below the remainder of the Bills which have received the Royal Assent, except a few of a private nature, and several Acts Incorporating Mining Companies, &c, &c. As soon as we have an opportunity we shall examine such as affect our agricultural friends and explain their nature.

An Act to define the limits of the Town of Bytown, to establish a Town Council therein, and for other purposes.
An Act to extend the provisions of the Marriage Act of Upper Canada to Ministers of all denominations of Christians.
An Act to incorporate the Toronto, Hamilton Niagara and St Catharine's Electric-Magnetic Telegraph Company.
An Act to amend the Act incorporating "The Cobourg and Rice Lake Plank Road and Ferry Company."
An Act to exempt the property of the Crown from local rates and taxes in Lower Canada.
An Act to authorize the Commissioners for Dundas and Waterloo Macadamized Road to borrow money to enable them to complete the said Road, and for other purposes.
An Act to amend the laws relative to the appointment of Special Officers, and for the better preservation of the Peace.
An Act for the better protection of Merchants and others who may hereafter receive assignments and enter into contracts and agreements in relation to goods and merchandize entrusted to Agents.
An Act for repealing and consolidating the present duties of Customs in this Province, and for other purposes therein mentioned.
An Act to amend the Act, intituled, An Act to amend the Act constituting the Board of Works.
An Act to consolidate and amend the Laws, and to repeal certain Acts relating to the crime of Forgery.
An Act to amend an error in the Act of the present Session, imposing Duties on Customs.
An Act to amend the Tenth Section of the Act to incorporate the Town of Kingston as a City
An Act for amending the Common School Act of Upper Canada.
An Act to incorporate certain persons under the name of the Burlington Bay Dock and Ship Building Company.
An Act to incorporate certain persons as the Guelph and Dundas Gas Company.
An Act to incorporate the Members of the Medical Profession in Lower Canada, and to regulate the study and practice of Physic and Surgery therein.
An Act to revive and extend the Act incorporating the Humber Harbour and Road Company.
An Act to incorporate the Mechanics' Institute of the City of Toronto.
An Act to regulate the duties between Master and Servant, and for other purposes therein mentioned.
An Act to amend, explain and continue an Act passed in the seventh year of the Reign of Her Majesty, intituled, "An Act to prevent obstructions in Rivers and Rivulets in Upper Canada
An Act to incorporate the British North American Electric Telegraph Association.
An Act to extend the Provincial Copyright Act to persons resident in the United Kingdom on certain conditions.
An Act to authorize the issuing of Debentures to pay the balance due to claimants for losses during the Rebellion and Invasion in Upper Canada.
An Act to appropriate the sums therein mentioned to defray certain expenses of the Civil Government for the year one thousand eight hundred and forty seven, and certain other expenses not otherwise provided for.
An Act to amend the Act for granting relief to the sufferers by the fires at Quebec.
An Act to amend the Law of Imprisonment for Debt in Upper Canada.
An Act to incorporate certain persons under the name of the Port Credit and Hurontario Plank Road Company.
An Act to incorporate the Lower Canada Agricultural Society.
An Act to facilitate the proof of the Charter and Act of incorporation of the British American Land Company.
An Act for the incoporation of the Agricultural Association of Upper Canada.
An Act to provide for an assessment of Real Property in the Town of Prescott according to the annual value or rental thereof, and for other purposes.
An Act to amend the Act incorporating the Etobicoke and Mono Sixth Lines Road Company
An Act to establish Lock-up Houses in the unincorporated Towns and Villages of Canada West.
An Act to repeal the Act of Incorporation of the Town of London, and to establish a Town Council therein in lieu of a Board of Police, and for other purposes therein mentioned.
An Act to incorporate the Town of Brantford
An Act to incorporate the Scarborough and Markham Plank Road Company.
An Act to confer limited corporate powers on the Towns and Villages of Canada West not specially incorporated.
A Act to incorporate certain persons under the name of The Streetsville Plank Road Company.
An Act to Amend the Law for the admission of Attorneys and calling of Barristers in Upper Canada,
An Act to incorporate the Echo Lake Mining Company.
An Act to incorporate the Cobourg and Port Hope Road Company.

The following Bills were assentd to by His Excellency the Governor General, on the 9th instant.

An Act for preventing Malicious Injuries to persons and property by fire or by explosive or destructive substances.
An Act for shortening the time of Prescription in certain cases, and for other purposes therein mentioned.
An Act for compensating the families of persons killed by accident, and for other purposes therein mentioned.
An Act to incorporate the Montreal Firemens' Benevolent Association.
An Act to divide the Western District of the Province of Canada, and for other purposes therein mentioned.

His Excellency was pleased to reserve the following Bills for the further signification of Her Majesty's pleasure thereon, viz:

An Act to extend the time for taking the oath and making the declaration required of persons naturalized in this Province
An Act to enable the Montreal Bank to increase their Capital Stock.
An Act to enable the City Bank to increase its Capital Stock.
An Act to incorporate the Woodstock and Lake Erie Railway and Harbour Company.
An Act to increase the Capital Stock of the Quebec Bank, and to amend in part the Act to extend the Charter of the said Bank.
An Act to facilitate commutation of the tenure of lands *en roture* in the Queen's Domain into that of free and common soccage, and to avoid the unnecessary delays and expenses heretofore incidental to such commutations.
An Act to incorporate the Bytown and Britannia Railway Company.
An Act to incorporate the Carillon and Greenville Railway Company.
An Act to incorporate the Lake St. Louis and Province line Railway Company
An Act to incorporate the District Bank of Quebec.
An Act to incorporate the Montreal and Province Line Junction Railway Company.
An Act to incorporate the Canada, New Brunswick and Nova Scotia Railway Company.
An Act for incorporating the Toronto and Goderich Railway Company.

THE NEW TARIFF.

TABLE OF EXEMPTIONS.

ANATOMICAL PREPARATIONS when imported expressly for the use of any College or School of Anatomy or Surgery, incorporated by Royal Charter or Act of Parliament, and not imported for sale.

COPIES of the HOLY SCRIPTURES printed in the United Kingdom of Great Britain and Ireland and not imported for sale.

BOOKS and MAPS and Illustrative Drawings, imported for the use of any Library to which the Public may have free admission, as also for the Libraries of either Branch of the Legislature.

COIN and BULLION.

DONATIONS of BOOKS or CLOTHING specially imported for the use of, or to be distributed gratuitously by any Charitable Society in this Province.

FISH, fresh, not described.

HORSES and CARRIAGES of TRAVELLERS, and Horses, Cattle and Carriages and other Vehicles, when employed in carrying merchandize, together with the necessary Harness and Tackle, so long as the same are *bona fide* in use for that purpose, except the Horses, Cattle, Carriages and Vehicles and Harness, of persons hawking goods, wares and Merchandize through the Province for the purpose of retail, and the Horses, Carriages and Harness of any Circus or Equestrian Troop for exhibition. The Horses, Carriages, Caravans and Harness of any Menagerie to be free, and horses and cattle belonging to persons coming into the Province for the purpose of actually settling therein.

HIDES, OFFAL and TALLOW of Cattle and Swine, slaughtered in bond.

MANURES of all kinds.

MODELS of MACHINERY, and of other inventions and improvements in the Arts.

PACKAGE containing Dutiable Articles.

PHILOSOPHICAL APPARATUS, Instruments, Books, Maps, Stationery, Busts, and Casts of Marble, Bronze, Alabaster or Plaster of Paris, Paintings, Drawings, Engravings, Etchings, specimens of Sculptures, Cabinets of Coins, Medals, Gems, and all other collections of Antiquities, provided the same be specially imported in good faith for the use of any Society incorporated or established for Philosophical or Literary pursuits, or for the encouragement of Fine Arts, or for the use or by the order of any University, College, Academy, School or Seminary of Learning within this Province.

PHILOSOPHICAL APPARATUS, &c., &c. imported for use by any public Lecturer for the purpose of gain, and to be re-exported, shall be allowed to be entered under Bond of two good and sufficient persons for their exportation within the specified time.

ARMS or CLOTHING which any Contractor or Contractors, Commissary or Commissaries, shall import or bring into the Province for the use of Her Majesty's Army or Navy, or for the use of the Indian Nations in this Province; Provided the duty otherwise payable would be defrayed or borne by the Treasury of the United Kingdom or of this Province.

SALT for the use of the Gaspe Fisheries.

SPECIMENS of Natural History, Mineralogy or Botany.

SEEDS of all kinds, Farming Utensils and Implements of Husbandry; Animals for the improvement of Stock, when specially imported in good faith by any Society incorporated or established for the encouragement of Agriculture.

WEARING APPAREL in actual use, and other Personal Effects not Merchandise, Implements and Tools of Trade of handy-craftsmen, in the occupation or employment of persons coming into the Province for the purpose of actually settling therein.

Also:—

CORDAGE, Salts, Salted or Cured Meats, Flour, Biscuits, Molasses, Pitch, Tar, Turpentine, Leather, Leather ware, Fishermen's Clothing and Hosiery, Fishing Craft, Utensils and Instruments imported into the District of Gaspe from the United Kingdom or the Channel Islands, or neighbouring Fisheries, for the use of the Fisheries carried on therein:—subject to such regulations as the Principal Officer of Customs at the Port of Quebec shall make, and which he is hereby empowered to establish for the purpose of ascertaining that such articles are *bona fide* intended to be applied to the use of such Fisheries. *Also:—*

That the native produce and Manufactures of all or any such of the other British North American Colonies as shall admit the native Produce and Manufactures of Canada free of duty, shall be entitled to the exemption from duties under this act, with the exception of Spirituous Liquors.

The following articles are prohibited to be imported, under a penalty of £ together with the forfeiture of the Parcel or package of Goods in which the same shall be found:—

BOOKS and Drawings of an immoral or indecent character.
COIN, Base or Counterfeit.

RIOT.

A most disgraceful riot took place at Kingston about ten days ago. A Priest, by the name of O'Higgins, was insulted by some one while attending to a sick person on the wharf. He fancied the party belonged to the steamer *Princess Royal*. A disturbance took place, and the Priest demanded satisfaction of the Captain, who offered his assistance to punish the person who used the insulting language, if he belonged to the boat. But he could not be identified. In the morning, a mob gathered and took possesion of the steamer, floated her out into the river, beat the captain and several of the crew, injured the boat, and were at last dispersed by the military. What was most strange, the authorities made no arrests.

TORONTO EMIGRANT HOSPITAL.—Return from the Emigrant Hospital, for the week ending, August 8th:—

Admitted, 150; Discharged, 137—of whom 102 were sent to the Convalescent Hospital; Died, 30; Remaining, 872.

The thirteenth anniversary of the abolition of slavery in the British dominions was celebrated in Hamilton last week.

Lord Ashburton has taken £500 worth of stock in the Woodstock and St. Andrews railroad, New Brunswick.

The Quebec Mercury says the crops of all kinds in that neighbourhood are most promising; peas are luxuriant and potato fields never looked better.

The Clarmont Mills at Burford, belonging to Mr. Alexander Macdonald of Toronto have been consumed by fire. The value of the property was about £1,500. There is said to be no doubt that the fire was the act of an incendiary.

The insects are making great ravages among the hops in Worcestershire.

At present, in Great Britain, there is one in 1585 of the population deaf and dumb, and one in 1000 blind.

A short time since, Indian corn sold at Cork for £19 10s. a ton: the best can now be had from £10 to £11 the ton.

THE CROPS IN THE NEIGHBOURHOOD OF MONTREAL.—The Montreal Gazette says:—The weather has now again become very warm, and in that respect most suitable to the maturation of the crops. Potatoes still continue to look healthy, both in field and garden, and the early sorts are abundant in our markets, and of better quality than they have been for some years back. Barley is very fast ripening, and the wheat shows signs of abundant and healthy product.

The latest accounts from the Quarantine Station at *Grosse Isle*, give an unfavourable account of the mortality and sickness in the vessels recently arrived there. In one as many as 78 deaths occurred during the passage, and in all many deaths and a great number sick.

THE MILLERITES AGAIN.—We understand from the Brooklyn Advertiser, that a number of fanatics have re-commenced the work of spiritual delusion, and with more method than madness are busying themselves in that city and elsewhere, distributing tracts to prove that the end of the world will take place on the 19th of October next. Some of these circulars and documents are said to be very plausibly written, and calculated to mislead the weak-minded as to the truth of the prophecy which they have so boldly advanced.—[Buffalo Express.

STEAMBOAT EXPLOSION.—The Niagara, Capt., Ellsworth left New York for Albany city Saturday morning last, with 200 passengers. When nearly at Sing Sing, going some 20 miles an hour, racing with the Roger Williams, her steam-chest and one of her boiler flues burst, damaging the boat considerably, and killing two firemen. Two more hands were reported missing. Seven of the passengers were scalded—probably none dangerously. The Roger Williams brought up her passengers. The Captain of the R. W. had charge of the Niagara last season. The N. was one of the most attractive boats on the river.

SHOCKING MURDER IN LOBOROUGH.—One of the most fearful murders ever perpetrated in any country, has taken place in this vicinity. A man and his wife, young emigrants, were brought into town, from Loborough, on Thursday night, in custody, for having murdered their two children, a boy of four and a girl of two years of age. The *real facts* of the case we do not know correctly; but it would appear that these children prevented their parents' obtaining work so readily as could be wished, so they determined get rid of them. The boy was found in the woods, covered with stones; and the little girl was left wholly exposed in another place, and found in a dying state. The cruel parents were arrested going up to town to make confession of their crime, having repented as they said. We give but a lame account of the sad affair, because we cannot believe that parents are extant who could murder their children so wantonly. When the woman was committed she was so ill that the Sheriff sent her to the Hospital under charge of a Constable.—Kingston Whig.

DROWNED.—The *Cobourg Star*, of Friday last, says, a man, named James Kernaghan, an attorney of Enniskillen, Ireland, was found drowned yesterday, about 12 o'clock. Some suspicious circumstances connected with his death are the subject of the Coroner's inquiry this morning.

We learn from the *Montreal Gazette* that on Friday morning, about 9 o'clock, the Artillery Barracks, at Chambly, were discovered to be on fire, and were speedily destroyed, with all their contents. The loss will principally fall on the officers of the garrison, whose winter appointments were stored there.

The number of deaths in Montreal, from the 25th to the 31st July, is 214—of whom 65 were emigrants.

From May the 10th to July 24th the total number of emigrants to Quebec who had died on the vessels, out and in the hospitals and tents at Grosse Isle, was 4572.

FIRE AT GUELPH.—On Friday morning last the Wellington Mills, owned by Messrs. Clark, & Co. were destroyed by fire. Loss about £5,500; insurance £2050. The fire is believed to have been the act of an incendiary.

The arrivals in Saratoga by railroad, from the 23rd of July to the 3rd inst., were in number 1854.

The Mobile Board of Health on the 28th ult., reported a case of yellow fever.

The electors of Milwaukie have voted to borrow $12,000 to improve their harbour.

About $5,000,000 are yearly earned in Massachusetts, by females employed in various factories and Manufactories of straw, hats, stocks, &c. About 40,000 females are thus annually employed.

A great amount of debenture goods is passing through this place for Canada.—Probably a larger amount up to this date than in all last year. It is said there are not vessels enough to do the present pressing business between this port and the Queen's dominions.—[Oswego Whig.

The Spanish Government has resolved to abolish the inland custom-houses, which have hitherto cramped the intercourse between the different provinces of Spain.

Nearly 100,000 emigrants have left Liverpool in the first six months of the present year, in 431 ships.

MEXICO.

The Tribune has received the following by telegraph.

RICHMOND, Aug. 6.

By an arrival at New Orleans, from Mexico, we have intelligence of the failure of the peace negotiations.

Scott was preparing for an immediate advance upon the capital. He was expected to move forward on the 16th of July.

Santa Anna was preparing to give fight with an army of 25,000.

Another skirmish between Gen. Pearce and the guerillas.

The Mexicans were defeated.

Santa Fee has been totally destroyed by the order of Governor Wilson.

Toronto Market Prices.

Aug. 14.	s.	d.		s.	d.
Flour, per barrel, 196 lbs....	22	6	a	25	0
Oatmeal, per barrel, 196 lbs....	27	6	a	28	6
Wheat, per bushel, 60 lbs....	3	9	a	4	2
Rye, per bushel, 56 lbs.....	3	0	a	3	4
Barley, per bushel, 48 lbs....	2	0	a	2	6
Oats, per bushel, 34 lbs.....	1	10½	a	2	0
Peas, per bushel, 60 lbs.....	2	0	a	2	6
Potatoes, per bushel.....	2	6	a	3	9
do new, per peck.....	1	3	a	1	6
Onions, per bushel.....	3	9	a	4	0
Tub Butter, per lb.....	0	5	a	0	6
Fresh Butter, per lb.....	0	7½	a	0	9
Eggs, per dozen.....	0	5	a	0	7½
Beef, per cwt.....	12	6	a	20	0
Beef, per lb.....	0	3	a	0	4
Pork, per 100 lbs.....	20	0	a	22	6
Hay, per ton.....	32	6	a	40	0
Straw, per ton.....	25	0	a	30	0
Timothy, per bushel, 60 lbs....	4	0	a	6	0
Mutton, per lb., by the qr....	0	2½	a	0	3½
Veal, per lb, by the qr.....	0	2½	a	0	3½
Turkies, each.....	2	6	a	4	0
Geese, each.....	0	0	a	0	0
Ducks, per couple.....	1	6	a	2	6
Fowls, per couple.....	1	6	a	2	0
Chickens, per couple.....	0	10	a	1	3
Bacon, per lb.....	0	4	a	0	5
Hams, per cwt.....	40	0	a	45	0
Lard, per lb.....	0	5	a	0	6

Advertising Department.

Order of the Board of Health.

ORDERED —That no Immigrants be permitted to bring into this city any beds, bedding, articles of clothing, or luggage, before the same shall have been inspected by the Constables attending on the Wharves, and they are found to be in a clean and proper condition. Any Carter Cabman, or other Carrier, who shall bring into the city any such bed, bedding, articles of clothing, or luggage, before the same have been inspected and passed by the Constables aforesaid, shall be forthwith proceeded against for the violation of this Order; and Tavern-Keepers, Lodging-house-Keepers, or other person or persons whatsoever, permitting the introduction into his house or premises of any such articles as above described, before the same have been inspected and passed by the said Constables, shall also be forthwith proceeded against as aforesaid.

Ordered,—That the Constables attending at the Wharves and Sheds, shall cause all unclean beds, bedding, clothing and luggage, to be instantly washed and purified by the Owners, and, that the said Constables shall inspect the contents of all luggage-boxes or chests, in order to ascertain whether any unclean clothing, bedding, or other articles of personal use be contained therein, and if any such be found, the said luggage-boxes, or chests shall be prohibited entrance into the City, and shall forthwith be cleansed and purified, in such manner and place, as shall by the said Constables be indicated to the Owners.

Published by order of the Board,

CHARLES DALY, C. C. C.

Board of Health Office, July 30, 1847. 476-

All the City papers to insert once, and no more.

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.

J. Ellis, Civil Engineer.

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

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

Peter street, Toronto, January, 1847.

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 Waggons, Carts, Lumber and Pleasure Sleighs, Cutters, Harrows, Scotch Ploughs (Wooden),—an article that defies competition, one of which was awarded the first prize at the late Provincial Agricultural Exhibition—Horse Rakes, Turnip Drills, and every article in the Agricultural Implement line.

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

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

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

Home District Mutual Fire Company.

OFFICE—*Nelson Street, opposite Adelaide Street, Toronto.*

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

DIRECTORS:

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

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

All Losses promptly adjusted.

Letters by Mail must be post-paid.

December 2d 1846. 444-

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 Shears,
2 tons Waggon Boxes,
2 tons Cast Steel,
3 tons Blister Steel,
1 ton Spring Steel,
½ ton Eagle Steel,
2 tons Camp Ovens,
2 tons Bellied Pots,
5 Blacksmith's Bellows,
60 Blacksmith' 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 Nails,
50 casks Wrought Nails,
20 casks Patent Pressed Nails,
35 casks Horse Nails,
40 casks Wrought Spikes,
40 casks Coil Chain,
200 boxes Windows Glass,
2 tons Putty,
20 dozen Common English Spades,
10 dozen Common English Shovels,
5 dozen Irish Spades,
2 dozen Scotch Spades,
60 dozen Steel Shovels,
8 dozen Steel Shovels,
10 dozen Grain Scoops,
40 Philadelphia Mill Saws,
40 "Fairbanks'" Platf'm & CounterScales

—ALSO—

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

18 Packages of Sheffield & Birmingham

Shelf Goods,

With an Assortment of American Hardware.

Toronto, 25th March, 1847.

R. H. Brett,

161 King Street, Toronto.

GENERAL MERCHANT—WHOLESALE.

IMPORTER of Heavy Hardware, Birmingham, Sheffield and Wolverhampton Shelf Goods, Earthenware, and Glassware, in Crates and Hhds.

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

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

Toronto, Nov., 1846. 1-6m.

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.

Swain & Co's Hygeian Medicine,

OR, WORSDELL'S

***Vegetable Restorative* PILLS.**

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

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

Authorised Travelling Agents.

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

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

STRIKING CURES.

WHO WISHES TO THROW AWAY HIS CRUTCHES?

Read the following Extract of a Letter received from our Agent at Richmond, Dalhousie Dist't:—

Richmond, 5th August, 1846.

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

I remain, Gentlemen,
Yours with respect,
P. McELROY.

To J. Swain & Co.,
Edwardsburgh, January, 1847.

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

ABRAHAM WILSON.

CURE OF OLD-STANDING STOMACH COMPLAINT.

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

To J. Swain & Co.

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

I remain, Gentlemen, yours respectfully,
MARGARET WILSON.

REMARKABLE TESTIMONY.

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

To J. Swain & Co.

Wellington Square, January, 1847.

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

I am yours very respectfully,
C. J. FORSYTH.

MARK THIS.

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

J. WETHERALD.

WONDERFUL RESTORATION TO HEALTH.

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

CURE OF INFLUENZA.

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

CURE OF INFLAMMATION IN THE BOWELS.

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

CURE OF LAKE FEVER.

Mr W R Cawthorn, of Bowmanville, had a very severe attack of Lake Fever; but after taking four boxes of the Restorative Pills, he was entirely cured.

Mr. Wetherald, General Agent for Kingston and surrounding country, writes as follows—

Messrs Swain & Co., Gentlemen,—Annexed I give you three certificates. One is a very remarkable cure of a young man named Henry S—gh, son of Mr. S—gh, a man known far and wide, who lived in South Crosby, Johnstown District While on my journey, seeing a very respectable house, called in and found his son sitting by the fire very ill; had not done anything for 18 months, and they had tried many means without effect—I left two boxes of pills—no cure no pay. I called again, on my last journey, and the old gentleman would have put me in his pocket if he could, he was so pleased. He said, those two boxes of pills have entirely cured my son, and as a proof of it, he yesterday emptied the sleigh of 112 bushels of wheat. His gratitude was unbounded, for he had lately lost one son and two daughters by consumption.

Joseph Cox, Esq., a good Old Methodist, who built a large chapel, and gave it to the Connexion, was very ill when I called. After taking two boxes of pills, his doctor, said another "would do for him" He however preserved, and when I called again he was taking the ninth box; and if ever your pills earned the title of "renovating" it was in this case, for he is indeed a new man, and daily attends to the business of his farm.

CURE OF AGUE AND FEVER.

Mr Martin had two children severely effected with Ague and Fever, who were entirely cured by the use of the Restorative Pills.

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 extensiveness, and the high repute they have attained, both in England and the United States, as well as in other countries, may now be regarded as the universal standard.

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

WORKMAN BROTHERS & Co.

Toronto, 22nd March, 1847.

NEW CHEAP
Clothing and Tailoring
ESTABLISHMENT,

130 YONGE STREET, TORONTO.

Samuel Murphy

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

A VARIETY OF

READY-MADE CLOTHING

suitable for country use, constantly on hand and will be sold *Cheap for Cash.*

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

Toronto, March 17, 1847. 10

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