Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

- ☐ Coloured covers/ Couverture de couleur
- ☐ Covers damaged/ Couverture endommagée
- ☐ Covers restored and/or laminated/ Couverture restaurée et/ou pelliculée
- ☐ Cover title missing/ Le titre de couverture manque
- ☐ Coloured maps/ Cartes géographiques en couleur
- ☐ Coloured ink (i.e. other than blue or black)/ Encre de couleur (i.e. autre que bleue ou noire)
- ☐ Coloured plates and/or illustrations/ Planches et/ou illustrations en couleur
- ☑ Bound with other material/ Relié avec d'autres documents
- ☑ Tight binding may cause shadows or distortion along interior margin/ La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
- ☐ Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/ Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

- ☐ Coloured pages/ Pages de couleur
- ☐ Pages damaged/ Pages endommagées
- ☐ Pages restored and/or laminated/ Pages restaurées et/ou pelliculées
- ☑ Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
- ☐ Pages detached/ Pages détachées
- ☑ Showthrough/ Transparence
- ☑ Quality of print varies/ Qualité inégale de l'impression
- ☑ Continuous pagination/ Pagination continue
- ☐ Includes index(es)/ Comprend un (des) index

  Title on header taken from:/ Le titre de l'en-tête provient:

- ☐ Title page of issue/ Page de titre de la livraison
- ☐ Caption of issue/ Titre de départ de la livraison
- ☐ Masthead/ Générique (périodiques) de la livraison

☑ Additional comments:/ Commentaires supplémentaires: Wrinkled pages may film slightly out of focus.

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

10X 14X 18X 22X 26X 30X

12X 16X 20X 24X 28X 32X

THE

CANADA FARMER.

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

Vol. I. TORONTO, FRIDAY, APRIL 23, 1847. No. 7.

SMUT, IN WHEAT, AND OTHER GRAIN.

There are very few subjects of greater interest to the Canadian Farmer than the one treated of in the following article. The advantages of a careful selection of seed, and of steeping it previous to sowing, are so fully explained and so satisfactorily proved, that we venture to think no farmer who attentively reads what follows, will continue the slovenly and short-sighted practices so prevalent in Canada. The time for sowing spring wheat is now at hand, and we have no doubt *many persons will find it necessary* to resort to it for their bread. The information in this article will, therefore, be opportune, and as it comes from the very best source, viz., The "Farmer's Encyclopedia," may be relied upon:—

SMUT.

A disease affecting almost every species of corn, the grains of which become filled with a fetid black powder, instead of containing farinaceous matter. Wet seasons, animalculæ, organic weakness, deficiency of the parts of generation, and other circumstances, have been assigned as the primary causes of this disease, but all the results of experience are against the opinion that these are more than contingencies which aggravate the symptoms, and accelerate the progress of the infection. That the smut does not arise from a deficient fecundity is apparent, because it affects and destroys the grain long before the sexual organs are fully developed. Fogs, exposure to intense sunshine when moist, or other atmospheric influence upon the ear after it has been protruded, have been assigned as causes; but these cannot be productive of the mischief, for the disease has been observed during an early stage of the vegetation of the ear, and long before it has escaped from the leafy envelopes; this also dismisses the opinion entertained by some that the disease occurs after the grains are fully formed. It does not arise from the too abundant moisture of the soil, because I have universally observed that the driest part of a field are as liable to bear an infected grain as the most wet; and we all know that infected plants stand surrounded by others entirely untainted. Some persons have thought that insects are the origin of the disease; but the most accurate observations have refuted this opinion, and shown that the diseased grains may be an agreeable nidus for the larvæ, but that these always appear after the disease is matured. Upon examining some of the diseased grains, Mr. R. Somerville found upon them a minute insect, in form like a wood-louse, which I knew from observation to be a species of the scarus, and these he considered the cause of the disease. But this is a conclusion unwarranted by observation, for similar vermin are found upon the roots of the Brassica tribe that are infected with aubury; and, indeed, this genus of insects is invariably found upon a decayed vegetable matter; it is their habitat.

Other persons have thought that the grains injured by the process of thrashing are most liable to the disease; but this is refuted by the fact that it appears in some years, and is scarcely to be detected in others. The Rev. Dr. Hales bruised numerous grains of wheat of different sizes with a hammer, but the result convinced him that this opinion is erroneous. Wolfirs thought it arose from a monstrosity of the embryo; but M. Cymon has shown that the male flowers of some plants suffer from smut as well as the female, and the former we know have no embryo.

Having thus disposed of the several causes which have been erroneously assigned, I will now proceed to detail the more correct knowledge that has been accumulated respecting this plague of our corn crops.

This disease is severally termed *smut dust-brand, blight, burnt corn, &c.* In France it is commonly known by the name of *charbon* and *nielle volante*. Botanists, aided by the microscope, have discovered that the cause of smut is a parasitical fungus, which preys not only upon the sap, but destroys the very organic structure of the grain and chaff upon which it fixes. The majority of naturalists agree in distinguishing the fungus by the title of *Uredo segetum*; but as the other synonymes, these, and the authors who have employed them, may be usefully enumerated. *Uredo segetum*, Pursh, n. 27; *Chaos ustilago*, Lin. Syst. Nat. 1326, n. 4; *Reticulaire des blés*, Bulliard's Fungi, vol. 1. p. 90, plate 472, f. 2. *Reticularia segetum*, Withering, iv. p. 388. *Charbon*, Tessier, Des Maladies des Grains, 299, Bulliard describes this fungus as globular, extremely fine, and attached to a fine elastic thread. They are exceedingly numerous, enveloping the seed and chaff of the plants they affect, and are, as well as their own still more minute seed, and an intense black colour, having a disagreeable fetid smell, which has been not inaptly compared to stale lobsters. Mr. Kirby tells us that Mr. Luthbury examined the dust of this fungus under a powerful magnifier, and found it consisted of numerous minute particles, uniform in shape and size, much smaller and blacker than those of the pepper brand, and less easily separable: they seemed to be contained in little irregular cells. This dust or seed is the food of a small, shining, black insect, the *Dermestes ata* of Marsham.

Chemical analysis has demonstrated that this fungus effects an entire decomposition of the vegetable particles of the grain it infects, the saline constituents remaining nearly unaltered in the grain. Parmentier, Cornet, Girot, Chaptians, Fourcroy, and Vauquelin, have successively examined it, and the result of their researches is, that smutted grains of wheat are composed, 1st, of about one-third their own weight of a green, butyraceous, fetid and acrid *oil*; 2nd, nearly one-fourth of a vegeto-animal substance, perfectly similar to that which comes from *putred gluten*; 3rd, a *black coal*, one-fifth of their weight, similar to that which is found in all remnants of putrefied organic compounds; 4th, free *phosphoric acid*, amounting scarcely to more than ·004 of the smut; 5th, phosphates of ammonia, magnesia, and lime, in the proportion of a few thousandths, &c. The ear of corn which is attacked is in general totally destroyed, but sometimes the same ear contains sound as well as smutty grains; and even one end of the same grain has been found diseased and the other end sound. However, as all the grains in an ear are usually infected, so, when one stalk is smutty, it generally happens that all the ears from the same root are so too. In March or April, upon carefully opening the hose or blade (*folium vaginans*) which covers the ear, and examining the young ear, although it was not more than one-sixth of an inch long, and almost close to the roots, M. Du Hamel found the embryo already black and distempered; a fact confirmed by the researches of Mr. Kirby. When the diseased ear comes out of the above-mentioned envelope, it looks lank and meager. About half an inch of the upper part of its stalk is commonly not quite straight. If cut asunder at not more than a quarter of an inch below the ear, it will be found nearly solid or filled with *pith*; the *circulation above is therefore obstructed*. The next most important point for consideration is, from whence is the infection communicated; and the following experiments will be found to have demonstrated that it is capable of being conveyed to the plants by the agency of the parent seed. These experiments are satisfactory and decisive; for although they are only in accordance with the most prevalent opinions of farmers upon the point, yet prevalent opinions are not always in accordance with truth, and are never to be implicitly received until sustained by evidence, which is independent of prejudice, and more accurate than surmise.

Mr. R. Somerville, in a paper published in the *Communications to the Board of Agriculture*, detailed experiments fully substantiating the fact, that the disease is communicable to the crop from the parent seed. He mixed some smutted grains with others perfectly healthy, and kept them two months; after which, previously to sowing, he rubbed them together between his hands. The sample was then divided into two equal parts, one of which was well washed with clear water three or four times, and then sown in a drill in his garden. The other half was sown similarly, but without being washed or otherwise prepared. The blades appeared above the surface at the same time, and during the first two months of their growth there was no visible difference in their appearance. Soon afterwards many of the plants from the unwashed seed were observed to have a darker and more dirty green hue than those from the seed that had been cleansed with water. This difference of colour by degrees became more striking, and increased until the grain was protruded from the blade, at which time many of the dark-coloured plants evinced symptoms of decay; and the whole of them, when fully developed, were found to be completely destroyed by the smut. The plants from the washed seed produced scarcely a single diseased ear. These results were not fortuitous, for the experiment afforded a similar testimony when repeated the next season.

The experiments of Mr. Harrup agreed with the preceding. In these, wheat, consisting of half of sound and half of smutted grains, was sown without being previously at all prepared, and this produced a crop of which nearly two-thirds were smutted. Similar wheat, soaked for twelve hours in a saturated solution of common salt, and then mixed with quicklime, produced on the same soil, in the same situation, and in the same season, a crop in which not a smutted ear could be found.

Similar, but more extended, and even more accurate experiments, were completed by Mr. Bevan, and are recorded in the ninth volume of the *Agricultural Magaziue*. They give the result of his trials with various liquids as steeps for seed-wheat. The wheat was grown on a sandy soil, at Leighton in Bedfordshire.

The conclusion from these and many other accordant experiments is, that washing the seed is effective in preventing the communication of the disease to the crop to which it gives birth. If the washing was frequently repeated, or the cleansing made complete, by passing a continual stream through the seed for some hours, it is probable that simple water might be employed for this purpose as effectually as any saline solution. But as this would require more labour than is desirable, and as the salts, &c., employed are beneficial *in other ways, by protecting the seed from* vermin, and ministering to the future vigour of the plants, *steeps* are generally and very properly adopted.

The experiments of Mr. Bevan indicate that lime-water is the most effective of these preparations; and, if this be adopted, it may be prepared by mixing 1 pound of fresh lime with three gallons of boiling water, and the clear liquor then to be poured off and immediately used. In this liquor the wheat should be soaked for 12 hours, stirred twice or thrice during the time, and then mixed upon a floor, with the powder made by pouring 3 gallons of boiling water upon 4 pounds of lime. I have had no experience of the effects of lime-water as a preventive of the smut; but with stale urine, and a solution of common salt, I have witnessed numerous and extensive experiments. The results, without exception, were favourable and nearly similar; and this being the case, a preference is to be given to common salt, as being decidedly the most cleanly and the least disgusting. The mode which I have observed to be the most effective is, to wash the seed with pure water, pouring this off with all the floating grains, and then allowing the seed to soak for 12 hours in a solution of common salt, having a strength or specific gravity sufficient to float a hen's egg. I have no doubt that lime like common salt, is effectual against the disease, by reason of its powerful action upon the texture of the fungus tribe. Every housekeeper knows how completely mushrooms dissolve away when sprinkled with salt; and in experiments I have made upon the *Urego segetum*, I found that the effects of common salt upon this fungus is not less remarkable.

Mr. Tull, MM. de Lignerolle, Donat, and others, agree in recommending that the seed to be sown upon any farm should be frequently obtained from other soils; but, however beneficial this may be for securing other desired effects, I do not understand how it can prevent the occurrence of smut unless the seed is obtained from a crop and a district notably free from the disease. There is *little doubt* but that the *method in which* the disease is imparted to the plant is by its root imbibing the extremely minute seeds of the *Uredo* along with the moisture of the soil. This opinion is confirmed by the observation that the disease is most prevalent when the winter has been mild and the spring wet; for, in such seasons, the abundant moisture passing through the soil is most likely to convey the seeds to the mouths of the plants' radicle fibres.

I remember trying some experiments, the full details of which I have accidentally lost, in which I buried some of the *Uredo segetum* about an inch below the surface of the soil, in a garden pot in which some wheat was growing, supplying those plants, during their after growth, plentifully with water, poured upon the surface of the soil. Not one of these *plants escaped infection*.

Another garden pot, in which wheat from the same sample was growing, and similarly treated in every respect, but to which moisture was supplied solely by means of the saucer in which it was placed, pots being sheltered entirely from the rain, produced plants which were not at all infected. Although it is very apparent that the smut is generally imparted to a wheat crop by the

agency of the seed sown, yet I am by no means of opinion that this is the only source of infection. I have kept ears of wheat that were converted and destroyed by the *Uredo* during more than twelve months in a situation where they experienced the vicissitudes of temperature during all the seasons, unprotected by more than the paper envelope in which they were suspended in an outhouse. Yet when the *Uredo* that had been thus exposed was mixed with healthy well washed seed-wheat this produced diseased plants in a triplicate proportion more numerous than that not so mixed. This experiment demonstrates that frost and drought, acting in concert with a damp atmosphere, do not destroy the vegetating power of the *Uredo's* seed. Such being the fact, why may not this seed remain in the soil ready to impart the plague? We know that, owing to its extreme lightness, the seed floats buoyantly in the air, and may be carried by winds to distant soils, which in the autumn of the same year, before any extremity of cold has been endured, will have to bear the wheat crop for the following harvest. The opinion that the soil is one source of infection, is sustained by the fact that the fields in the vicinity of the sea are rarely injured, and never extensively, by the ravages of the smut. Such soils are impregnated more than any other with common salt, and the effects of this saline compound upon the *Uredo* has been noticed already. These considerations suggested that applications to the soil as well as to the seed are necessary for the banishment of the disease.

I have frequently examined the roots of wheat plants affected by the smut but have never perceived that they had a diseased appearance: a fact which I find confirmed by the researches of Mr. Kirby. Although the root is not affected, yet I have invariably found the smutted plants of a form and habit much less robust than those undiseased. The average result of Mr. Bevans's experiments is, that smutted wheat produces straw in the proportion of only 30 to 36·75, when compared with wheat unattacked by the smut. This is not a result contrary to that which might be anticipated; for in plants, as well as animals, an organic affection so serious as this is usually accompanied by a general emaciation of the frame. So decidedly is this effect produced upon wheat, that a practised eye can at once detect by its appearance, before the diseased ear is protruded, a plant that is thus distempered. The stem and leaves look upright, thin, and stiff, wearing the aspect that is best described, to those who know the appearance, by the term *staring*. I cannot conclude without remarking that these facts strengthen the analogy I am so fond of tracing between plants and animals. The atrophy exhibited by both, when under the influence of disease, is strikingly illustrative of their close relationship; and this is further carried on by their being equally liable to the ravages of parasites. The skin of every animal is liable to be infested by vermin, as its intestines and other viscera are by worms and various other creatures. So plants are not only subject to invermination, but, like animals, they are preyed upon by various genera of their own race. Their barks are assailed by numerous lichens and fungi, whilst internally they are a prey to the *Uredo* I have just described, and to several others of the fungus tribe. Animals have their larger parasites, as the tick, &c., and vegetables similarly bear the misseltoe, dodder, and others. This repeated urging that plants are closely allied to animals in every particular is not without its use. Every year's experience convinces me that it is not less beneficial to cultivate plants with the least possible injury to their various parts, than it is to treat our farming stock with gentleness and an attention to their comfort; and it is by demonstrating the analogy between the two great divisions of created beings, the reason of the cultivator is to be drawn to regulate his practice.

Finally, I will observe, that the farmer is much too prone to regard the diseases of his crops as of trivial importance. In such cases as where the curl destroys the whole of his potatoes, or the mildew reduces the produce of each acre of wheat to a few bushels, he is miserably sensible of the injury he has sustained; but if, within the circle of corn-ears around him, as he surveys his crops, he only sees a sprinkling of those affected with the smut, he looks upon this as of insignificant consequence. Yet, in the experiments of Mr. Bevan, in the instances where only two smutted ears occurred in three sheaves, the weight of the straw was reduced nearly one-third, and that of the grain three-sevenths.—(Essay by G. W. Johnson, *Quart. Journ. Agr.* vol. ix. p. 45.)

—o—

GLANDERS.

The following remarks upon "Glanders" in Horses are by the author, *M Lebeaud* from whom we have already quoted. We should always advise, in cases of serious disease, that the assistance of a good veterinary surgeon be procured as soon as possible. Sometimes, and in some places, this cannot be done. The owner of the animal must therefore "doctor" himself, and the more information he has obtained upon such subjects, the greater is his chance of success. In all cases, whether you seek professional aid or not, it would be of the greatest advantage to have some acquaintance with the nature of the disease and the appropriate remedy:—

A disease of the lining membrane of the nostrils, commonly reputed to be contagious, and which extends sometimes to the throat and lungs. The old farriers differed in their opinions as to the seat of this disease, but the true character of glanders is now well established. The causes of the disease are not even yet well understood, but whatever may be the origin of the distemper, the result is always an inflammation of the mucous membrane. Many other diseases are liable to be mistaken for this; but the true glanders is known by fixed and certain characteristics, by those who have seen it; a discharge of mucous from the nostrils—sometimes colourless, as the white of an egg—sometimes yellowish, and streaked with blood; it becomes, as the disease advances, purulent—then dark, corrupted, and fetid; it sometimes is checked for a day or two, and appears again. The glands of the lower jaw become inflamed and swelled; but the horse does not cough nor lose his appetite, nor give any other sign of disease. But if the complaint goes on, it attains a frightful intensity—the interior of the nostrils are covered with deep and malignant ulcers, the bones become carious, and the horse languishes in this condition a long time, and dies. The glanders has long been regarded as incurable, but the discoveries of modern veterinary medicine has put it in our power to do something to arrest the course of this formidable disease. When it is not of too long standing, the internal treatment prescribed in the farcy, may be adopted with advantage, and make use of the injections in the nostrils, recommended in the strangles. When the ulcers are well cleansed, lime-water, or some other astringent injection, should be substituted. It will be dangerous, however to suppress too suddenly, the discharge by means of astringents, especially when the ulcers are not very deep. In order to introduce the injections more easily into the frontal sinus, some good surgeons advise us to punch a whole in the bone, large enough to introduce a syringe. When the ulcers of the nostrils appear to be taking on a more healthy action, we should join to the employment of the astringent, reginous fumigation. For this purpose we should burn on a shovel of coals, a handful of the aromatic mixture, No. 36, and receive the vapour in an inverted tunnel, the tube of which is inserted in the horse's nostril—this may be done twice a day. When the disease is of long standing, there is little hope of a cure. But if the horse is worth the trouble, and is not too nearly worn out, the following means may be tried. After having prepared the horse by bleeding and other general treatment, he should take at night, the pill No. 9, and the next morning the pill No. 10. These medicines may be repeated as often as they may seem to be necessary, leaving each time, an interval of two or three days between each dose. If his strength fails under this mode of treatment, suspend it for some time, and in the interval, he should take an ounce of nitric acid in a quart of sweetened water, every other day until he has recovered his strength sufficiently to take the pills again. When it is thought that the pills Nos. 9, and 10, have sufficiently operated, we should continue the treatment by giving, at first every day and then every two days, the pill No. 35, and continue them till he is cured. If, in spite of all treatment, he gets no better, we must kill him, both to keep the disease from other animals, and to save needless expense. All precaution must be used to keep other horses from the infection, and the man who tends him must be careful of himself, for the disease may be taken by man as well as animals.

No. 36, Juniper berries, eight ounces; rosemary and sage, each four ounces; sugar, four ounces; myrrh, two ounces—mix.

No. 9, Calomel, a dram; red precipitate, half a dram; golden sulphuret of antimony, hard soap, ginger, gum-guaiac, each a quarter of an ounce—mix with molasses, and form a pill.

No. 10, Aloes, an ounce; resin of jalap, ginger, and hard soap, each two drams; oil of sassafras, a dram—mix with molasses, and form a pill.

No. 35, Turpentine, hard soap, nitre, sulphur, liver of antimony, and ginger, each four ounces. Reduce the ingredients to a fine powder and mix into a mass, with molasses, and divide into fourteen pills.

TO CORRESPONDENTS.

R D. Your communication is well written and pertinent to the subject you have chosen; but we prefer leaving such information to be sought through other channels. The operations described are generally entrusted to those who follow the business, and must be presumed to know something about it; and though we admit it is a subject of importance to the farmer, and ought to be understood by him, yet as our paper is intended for the eye of females as well as others, we must display a little delicacy in the selection of subjects for consideration. Without the "rooster" fastidiousness of our Yankee neighbours, would our correspondent think it quite proper, and would he feel quite "at home" to sit down and read his communication to the family circle, embracing two or three young ladies of sense and ordinary refinement! This is our test; and, according to our notions of modesty, we shall always apply it.

B. H., Bronte, will please accept our thanks for his attention and promise. We send copies of the missing papers along with this number, addressed as he directs.

CANADA FARMER.

April 23, 1847.

MANURE—QUANTITY TO THE ACRE, &c.

At the very foundation of good husbandry lies the subject of manure. No farmer can prosper, or even "get along," as the phrase is, for any length of time without paying some attention to the making and saving of manure, as well as to the proper time and mode of applying it to his land. The whole subject has been well discussed in the various agricultural Journals in the United States and Great Britain, and by numerous agricultural writers, during the last four or five years; but it is far from being exhausted. Experiments of all kinds, and upon all kinds of soil, have been made to test the value of the different fertilizing substances, singly and combined in the shape of composts, and also to ascertain the quantity and mode of applying them which would ensure the greatest benefit to the farmer. Various theories have been promulgated, various opinions expressed, and numerous facts elicited and discoveries made, which have contributed in a wonderful degree to the advancement of agriculture, and the substantial interests of all who are engaged in it, or dependant upon it. Still, the very worst practices of the worst farmers, during the worst times, (in an agricultural sense)—anterior to the diffusion of so much light on the subject, prevail extensively in Canada. You need not travel three miles on any of the public roads leading from Toronto, to see those methods adopted, by which it has been proved over and over again, experimentally, scientifically, and in every possible way, that one *half* of the manure, nay, *two-thirds* of its fertilizing power is utterly lost—dissipated in the air. Now, this waste cannot be afforded; we *must* husband our resources, and give back to the soil those ingredients in the shape of manure, which we take from it by our crops, or we shall find to our cost, so soon as the decayed timber and leaves of the forest are exhausted, that we have neither the means of making the one, nor producing the other. We shall constantly keep our attention directed to this most important subject, the "economy of manures," and if those who are favorable to improvement will take the trouble to extend the circulation of our Journal, we feel sure we shall be able to do some good to the public and much to individuals. It is in questions of this kind that agricultural Journals are most useful—without them there is little hope of improvement. We quote the remarks below from Mr. Youatt, the writer of British Husbandry, and one of the best practical writers of the day. We were pained to hear a few weeks since of his melancholy death.

Dr. Coventry, for some time Professor of Agriculture in the University of Edinburgh, whose business and study it was to collect data and make deductions in this and other agricultural matters, was of opinion that from four to five tons of manure of the kind usually denominated spit, or tolerably rotted dung, are yearly required for every acre of land to keep up its fertility. This supply, he thinks, a well-managed farm will produce:—

"According to that calculation," says our author, "it must be observed, that the course of crops is supposed to consist—on light soils, of the the alternate plan of corn & green crops, on clays which do not admit of that system, that the holding contain a proportionate quantity of grass land; and that the quantity of manure should be supplied not in small quantities annually, but in large ones, at intermediate distances of four, five, and six years. Light soils, in the common course of husbandry, rarely require the application of putrescent manure oftener than once in four years, and in all cases where clover is allowed to stand two seasons, it may be deferred without disadvantage for another year. Heavy soils may run six years without it, provided that the land be laid one year in fallow, and that there be sufficient meadow to be reckoned at least one crop in the course. It being, however, clearly understood, that, whether on light or heavy land, nothing but grain, seeds, and live stock is to be sold off the farm, or else replaced with an equal portion of purchased dung; that the whole of the green crops, the haulm of pulse, and the straw of corn, be used in the most economical manner; and that some of the live stock be either soiled or fattened upon oil cake; which plan, if carefully pursued on good soils, with capital sufficient to secure an abundant working and fattening stock of cattle, ought, under fair management, to furnish an adequate supply of dung for any of the usual courses of culture."

"Having thus submitted to our readers all that occurs to us of importance on the subject of farm-yard manure, we shall here recapitulate a summary of the chief points which we deem particularly worthy of their consideration:—

1. To bottom the farm-yard with furze, fern (in Yankee dialect brake) dry haulm, (stubble, &c.) or any other loose refuse that takes the longest time to dissolve; and over that to bed it deep with straw.

2. To occasionally remove the cribs of store cattle to different parts of the straw yard, in order that their dung may be dropped, and their litter trodden, equally.

3. To spread the dung of other animals, when thrown into the yards, in equal layer over every part.

4. To remove the dung from the yard at least once, or oftener, during the winter, to the mixen.

5. To turn and mix all dung hills, until the woody or fibrous texture of the matter contained in them, and the roots and seeds of weeds, be completely decomposed, and until they emit a foul putrid smell; by which time they reach their greatest degree of strength, and arrive at the state of [illegible]

6. To keep the dung in an equal state of moisture, so as to prevent any portion of the heap from becoming fire-fanged. If the fermentation be too rapid, heavy watering will abate the heat; but it will afterwards revive with increased force, unless the heap be either trodden firmly down or covered with mould to exclude the air.

7. To ferment the dung, if to be laid upon arable land during the autumn, in a much less degree than that to be applied before a spring sowing.

8. To lay a larger quantity on cold and wet lands than on those of a lighter nature; because the former require to be corrected by the warmth of the dung, while, on dry, sandy, and gravelly soils, the application of too much dung is apt to burn up the plants. Still land will also be loosened by the undecayed fibres of long dung, which, although its putrefaction will thus be retarded, and its fertilizing power delayed, will yet ultimately afford nourishment.

9 To form composts with dung, or other animal and vegetable substances, and earth, for application to light soils.

10. To spread the manure upon the land, when carried to the field, with the least possible delay, and, if laid upon arable, to turn it immediately into the soil.

11. To preserve the drainage from stables and dung-hills in every possible way; and if not applied in a liquid state, to throw it again upon the mixen

12. To try experiments, during a series of years, upon the same soils and crops, with equal quantities of dung, laid on fresh, and afterwards rotted; in order to ascertain the results of their application to the land The whole quantity to be first weighed or measured, and then divided.

"The fermentation of farm-yard manure is, in fact, a subject of far more importance than is generally imagined, for on a due estimation of its value mainly depends the individual success, as well as the national prosperity, of our agriculture. The experiments to which we point cannot, therefore, fail to come home to the interests of every man; they may be made without expense, and without any other trouble than the mere exercise of common observation and intelligence Leaving, however, aside the discussion concerning the disputed worth of fresh or fermented—of long or short dung,—let the farmer sedulously bend his attention to the accumulation of the utmost quantity that it may be in his power to procure The manner and the time of using it, in either state, must, however, be governed by circumstances which may not always be within his control: and every judicious husbandman will rather accommodate himself to the exigency of the case than adhere strictly to his own notions of what he conceives to be the best practice. In fine, whether favoring the one or the other side of the question, let him collect all he can; apply it carefully to his crops, and then, trusting to events,—"*let the land and the muck settle it.*"

THE POTATOE.

Many persons are not aware that the ordinary method of propagating the potatoe is not the natural one. The potatoe when properly cultivated bears seed like other plants, and this seed, and not the roots, is the means which nature has provided for reproduction. And although there is a vegetative, or reproductive power in almost every part of the potatoe, so much so that it is called the vegetable Polypus, yet it has been found to degenerate when the natural process has for any length of time, been departed from. The better opinion now seems to be, that the disease of the last two or three years, so direful in its consequences, proceeds from a combination of causes, acting upon the plant while in a degenerate and enfeebled state, induced by the common and unnatural mode of propagation. Every other theory has failed to account for the disease in a satisfactory manner. A whole book has been written by an English Physician, Mr. Alfred Smee, to prove that the disease is caused by an insect of the *aphis* genus, which he calls the *vastator*. But the *fact* of the presence of any such insect upon the plant during the first stages of decay, has been denied by many persons who have taken the greatest pains to examine the matter. We have not yet seen Mr. Smee's work, and are not therefore able to judge of the grounds upon which he bases his conclusions. But even this theory, as plausible as any, does not shut out the possibility of the disease being the result of a gradual deterioration of the plant, which has predisposed it to the attack of insects and rendered it incapable of resisting their effect. It is well known to those who have investigated the subject, that plants are infested with insects peculiar to themselves. "Aphides or *plant-lice*," says the Editor of the Farmers Encyclopedia, "are found upon almost all parts of plants, and there is scarcely a plant which does not harbour one or two kinds peculiar to itself." It may be found that the *aphis* which Mr. Smee and some others have detected, is a new creation in the insect kingdom peculiar to the potatoe plant. We hope intelligent persons in different parts of the country will carefully examine the progress of the disease, should it make its appearance this summer, and especially as to whether it be caused by an insect or not. It will of course be necessary to provide a microscope to make a proper examination. Those "scientific" gentlemen who have taken their *friends into the potatoe field* and pointed out a few black flies on the stalk of the plant, and then learnedly jumped to the conclusion that the potatoe disease was caused by insects, must push their researches a little further before the public can have much confidence in their statements.

The result of the two last years experience would indicate the following as the best course to be adopted in planting. Choose light loamy soils, in a high rather than a low situation. If possible get a spot that will be rich enough for an ordinary crop without adding fresh manure. Plant early, and choose early varieties for seed. In a short excursion through a part of the township of Toronto, which we made the other day, we observed a number of potatoe fields in which only a few rows had been dug. In almost every case these fields were low, and composed of a deep, black mould, containing large quantities of undecayed vegetable matter. It has been found in other parts of this country, and in the United States, that upon this description of soil the crop has invariably failed. Those who have a piece of new land that has been well burned over, will do well to reserve it for the potatoe patch. We refer such to the remarks of our *Markham* correspondent in our last number.

It is an opinion entertained by many that the best and only means of avoiding the disease in future, is to return to the cultivation of new varieties from the *seed*. A Mr. Smith, of Buffalo, has been engaged in this business for five or six years, and states that his potatoes are free from decay and keep in the best possible order. We observe it was stated at a late meeting of the New York Farmers Club, that the Emperor of Russia had ordered large quantities of potatoe seed from the United States. One dealer had sent him 10 lbs. at $20 per pound. Return to the seed, is the advice of many intelligent, practical men. We repeat the advice; wherever you discover the balls containing the seed, let them ripen, and carefully preserve them. In this way, new kinds will be produced in great numbers, and the renovation of the potatoe be speedily effected throughout the country. If the adoption of this plan will not accomplish the object, we fear we shall be compelled to dismiss the potatoe from its accustomed place on the table.

Since putting the above in the printer's hands, we have met with the following in an exchange paper. It is taken from a report of the proceedings of the New York Farmers' Club, and is confirmatory of the views we have expressed. It does not appear to us that the mere "loss of vitality" from the unnatural mode of propagation is sufficient to account for the *suddenness* and *universality* of the disease. Although it is stated to have been making its appearance in Ireland and some other places *gradually* for some years, yet in this country it came upon us in one season, and thus suggested the existence of an atmospherical cause. If it were owing *solely* to the loss of vitality, we should expect to find *new* varieties nearly if not quite free from disease. This may be the fact, but we have seen the contrary frequently stated. This whole subject requires more thorough, extended and scientific observation, and we hope a large number of *our* readers will this season give their attention to the matter and communicate to us the results.

Mr. Hyde read an essay on the disease of the potatoe. He attributed it to the loss of vitality in the plant in consequence of the continued planting from the tubers and not the seed. This was the opinion of the swans of Europe, and the Emperor of Russia had sent to this country for seeds. This view of the cause of the disease was confirmed by the facts of natural history. 1st. Most plants can be perpetuated only from the seeds and not from cuttings. 2nd The progeny inherits all the essential and most of the accidental properties of the parent. 3d. The tendency of plants is either to improvement or to deterioration. 4th. Great changes in plants require time and many reproductions. 5th. They are effected by soil and climate. 6th. Plants which have lost their vitality are preyed upon by parasites which were not born on the plant. 7th Production of blossoms without seed was an evidence of the loss of vitality.

These admitted facts in natural history would explain all the appearances in diseased potatoe crops. Potatoes will blossom, but seldom go to seed, and have been preyed on by parasites. The varieties of climate, soil and condition of the tubers, would explain the inequality of the crops. He considered it as well established, that a loss of vitality had ensued from the continued planting of the tubers and that the crop was to be restored by planting the seed. Still, good seed was necessary. If the parent was diseased, the progeny would be also. The practice of planting from sound seed had been tried by Mr. Smith, near Buffalo, with great success. These views of Mr. Hyde were concurred in by several members, who spoke of them as well established and generally admitted.

—

It would seem from the following statement, in reference to an experiment in the lower part of this Province, as well as from similar ones in the United States, that we may expect a return of the potatoe disease this summer; more general and more virulent, probably, than the last :—

Sherbrooke, April 8th.

Potato Disease.—We have been shown by Mr A. Thompson, of this town, a stalk of a potatoe plant grown by him, in his house the present winter—which has, to all appearance, been struck with the potatoe disease. The plant has been growing vigorously till within eight or ten days, when it was struck with the disease. The leaves are spotted with a dark yellow color, and present the same slimy appearance, as when attacked in the summer season, in the open field. Whether this is an indication that the disease will prevail the coming season, we leave others to conjecture. The prevailing opinion has been, that the disease was passing away, in this part of the country.

DISEASES OF SHEEP.

We take the following from one of the most respectable American journals devoted to agriculture. The information was furnished, the editor states, by an experienced friend, practically engaged in the rearing of sheep. We must remind our readers, as we know much misconception prevails upon the subject of editorial responsibility, that they must not suppose that everything which appears in our journal is tried, understood, and *approved* by *us*. It never is, and never can be so. We must take things as we find them; nothing is perfect and infallible. All we can do is to use the *best means* of making the nearest approaches to perfection. It is in this that we may display our judgment and skill. In taking statements like the following from other sources, we exercise our best discretion upon the apparent reasonableness of the suggestions, relying upon what we may know of the respectability and discrimination of those from whom we borrow. What is intended to be given upon our own authority will be so stated, and for that we have no objections to be held strictly responsible.

DISEASES OF SHEEP.

Cure for Hoven.—Take ½ lb. of lard, 1 pint of milk, boil both down to a pint, mixing them well together. Give half of this immediately at blood heat, and the remainder soon after.

Another. Give 1 gill of urine with as much salt [illegible] will dissolve.

Hoven arises from eating an excess of wet clover. This should be avoided by keeping the animals from clover fields which are drenched with rain or heavy dews, especially when particularly hungry.

Cure for Scab—To 1 lb. tobacco add 12 qts. ley from wood-ashes of suitable strength for washing, and 4 qts. urine. To this mixture add a second of 1 gill high wines, ½ oz. camphor, ½ oz. Spanish brown, and ½ gill spirits of turpentine. The application to be made to the sore, and it has never been known to fail.

Cure for Foot Rot—Pare the foot well and scrape it thoroughly; then add to a wineglass full of spirits of antimony, a piece of blue vitriol, the size of a walnut, dissolved in a little urine; rub this well on with a stick. If a sheep is very bad, and foot festering or gangrenous, take the yolk of two eggs, mix with one or two ozs. gum turpentine, and stir them till they make a salve. Put on the salve after you have applied the first prescription, and tie it on with a rag or piece of leather.

Cure for Wethers Coming Down.—Wash them with milk and water before returning them; or boil 2 qts milk with a good deal of lard, and wash them often while putting up.

To Make a Sheep own a Lamb.—Milk all *over the lamb and under his tail, and rub it on* well, then tie up the ewe head and body.

Another, Rub the liver, and light, and contents of the stomach of the dead lamb over the new lamb, and put the skin of the dead lamb to the adopted one.

Cure for Stretches.—Sheep sometimes stretch their noses on the ground and around by their side as if in severe pain. This is frequently occasioned by an involution of a part of the intestine within another, called, when occurring in the human subject, *intersusceptio.* Immediate relief is afforded, when the last is the cause, by lifting up the animal by the hind legs, and shaking them a few times, when the pain disappears.

BENEFITS OF SALT AS MANURE.

The following, in addition to its use, as recently ascertained, in preventing the disease in the potatoe, is a summary of the benefits to be derived from salt, applied to the soil :—

It attracts the humid vapors and repels frost, and thus assists in keeping the land moist in dry weather, and warm in cold. It keeps everything *in the soil in a soft and soluble state, and assists* to digest and prepare the food for vegetable nutrition. It destroys many kinds of vermin and weeds, and usually increases the amount of the crop from one fourth to one third; strengthens the *growth of everything to which it is applied,* and brings all crops earlier to harvest. It generally adds from 5 to 7 bushels per acre to the yield of wheat used in the most moderate quantity, and in all kinds of grain makes more ear and less straw. Mr. George Sinclair obtained at Woburn, on plots of 36 square feet, at the rate of 70 to 95 bushels of wheat per acre, by the use of salt mixed with other manures. It is found equally beneficial to pasture as well as root crops, sweetening all vegetation, and making it more wholesome for man and beast. It is a great safeguard against blast, mildew, rust, and indeed all the diseases of grain and vegetables.

Salt is inoperative applied near the seashore, where salt water or spray is already in excess on the land; but everywhere else it is beneficial. It may be used at the rate of 5 to 40 bushels per acre, though 10 to 20 bushels is better. It can be sown broadcast on the land, or be incorporated in the manure or compost heap. Mr. Prideaux informs us that mixed with lime and its compounds it undergoes decomposition, producing soda on its combination with carbonic acid, or with humus; all more powerful digesters and feeders than the salt itself; and the muriate of lime, which has the strongest attraction for moisture of almost anything known. Salt and lime work vegetable matters to decay quicker than salt alone. With gypsum it will supply soda and sulphuric acid cheaper than any other material, besides the muriate of lime, so valuable for its moistening quality.

Parsnips.—Parsnips are preferred by hogs to all other roots, and make excellent pork. By them they can be fattened in six weeks. Too much cannot be said in praise of beef and pork fattened on parsnips. A porker twenty-two months old, weighing nett seven hundred and fifty pounds, never ate anything but raw parsnips and sour milk; and finer meat never was seen. In the use of parsnips they should never be washed, but be given *as they are taken from the ground. Used in this* way they are found not to surfeit the hogs and cattle, and to fatten them much better and quicker. If washed they are apt to satiate, and as farmers say, will not thoroughly fatten them. They are good to fatten cattle, and if given freely to cows, will much improve the quality and quantity of their milk.—[Prairie farmer.

Radishes.—If you sow this vegetable in land which has been long cultivated, cover carefully with two or three inches of fine gravel. Salt is a salutary application, and a good specific for the worm evil.

Potatoe Rot Prevented.—Mr. Croft of Williamsburg, Penn., has issued a treatise on potato disease. He contends that an excess of carbonic acid causes the disease, and that alkalies, lime and potash, are the proper remedies for it.

Civil and Social Department.

CAPITAL PUNISHMENT.

There is no subject on the discussion of which we ever entered with so much diffidence as that of the abolition of the punishment of death. It is a subject, which at the present time engages the attention of the whole civilized world. The advocates of abolition every day increase in numbers, but triumph has not, except in one or two instances, crowned their efforts. We know of no country or State, with the single exception of the State of Michigan, where the punishment of death is not enforced. In most countries this punishment is now confined to one or two crimes; in some it extends to several; but in few countries are so many crimes punishable with death as were a few years ago. The mitigation of the rigour of punishment, and the abolition of brutal modes of torture, are regarded as a marked feature of the advanced civilization of the present age. In glancing at the criminal codes of different nations, one is struck with the irregularity and the national caprice exhibited in the punishment of the same crime.

This variation may perhaps be excused on the ground that it accommodates itself to the different degrees of civilization found in different countries. But in the different States of the American Union, where there cannot be a very wide difference in the *status* of civilization, considerable inequality of punishment exists. In the old settled States of New England, manufactures, science, and the arts are in a more advanced state than in Iowa or Wisconsin. But in some of the oldest States we find that the punishment of death extends to the greatest number of crimes. North Carolina is the most rigorous in its punishments of any State in the Union. Horse-stealing, slave-stealing, bigamy, arson, and circulating seditious publications among the slaves, in addition to the crimes of rape and murder, are all capital offences; as well as several other crimes of a secondary nature. South Carolina punishes horse-stealing and forgery with death. Maryland places the burning of Mills in the list of capital crimes. Georgiana attaches the punishment of death to the circulation of insurrectionary papers; or in other words, telling the slave that he is a slave; and in this respect Louisiana follows her example. Tennessee and Ohio confine the punishment of death to the crime of murder; and Indiana to treason and murder. Delaware makes the crime of burglary a capital offence, and Rhode Island, Massachusetts, and New York, punish arson with death. The code of the United States, where no particular State is concerned, punishes with death the following crimes: treason, murder, arson, rape on the seas, robbing Mail (second time,) forgery, piracy, robbery on the high seas, setting fire to ships, and some others. The punishment of death in England is now confined to murder and rape, and we believe one or two statutory offences. There is something arbitrary, revolting and irrational in the strange contradictions in the criminal codes of the different States of the American Union. In one State, horse-stealing is a trifling offence, visited with a light punishment; in others it is raised in atrocity to an equality with murder. In some States the publication of truth is not only made a crime, but the *highest* crime that can be committed, and is punished with death. When so much difference of opinion exists as to the crimes to which the punishment of death should attach; when the hangman is guided by no other rule than the caprice or prejudice of a people, and when this caprice and these prejudices run in opposite directions in different countries, and in the same country at different periods; it is not matter of surprise that the question of abolishing capital punishment altogether should have arisen. Men have not agreed to fix any definite limit to the punishment of death. Different countries, and as we have seen, different States in the same country, allow it a range equal to their prejudices, their convictions or their caprice. If a short term of imprisonment is a just and proper punishment in Tennessee for the crime of horse-stealing, it is nothing short of murder to hang a man for committing the same crime in North Carolina; and yet the judges, the juries, and the people of North Carolina persist in hanging the horse-thief, and think they are fulfilling a duty in doing so. It is perfectly true that many parts of a criminal code which may be suited to a state of society in one country at one time, may be barbarously severe in another country or age presenting a more advanced state of civilization. But the punishment of death can scarcely accommodate itself to these varying circumstances. The sacredness of human life is too great to be trifled with. Justice, strict unbending justice will place some limit to the punishment of death. It is right to hang a man for stealing a horse, or it is not; and this right must be paramount under all circumstances and in all cases. If we reduce man to a level with the horse, and insist on taking a man's life for the value of a horse, we might produce a tolerable argument in favour of the practice of hanging the horse-thief: but not otherwise. Where then shall we place the limit of death punishment? The limits assigned by the present practice of different countries are merely arbitrary; the practice of one country contradicts that of another, and as justice is uniform and consistent, it follows that the practice of some countries must be wrong; and every error committed in the taking of human life is a judicial murder. Where then shall we fix the limit of death punishment so as to escape the consequences of so fatal an error? Shall we go to the Bible and take the Mosaic practice for our guide? If we are to take the Mosaic dispensation for our guide, a question may arise whether we ought also to adopt the mode of stoning to death pursued by the Jews under that dispensation.

Leaving this question to be discussed or settled by those whose leisure and inclination may lead them into it, let us see whether it be practicable to adopt the Mosaic code of punishment, with perfect safety to the interests of society. The Mosaic dispensation placed the violation of the Sabbath in the category of capital crimes. We need enumerate no other offence. It is clearly impossible that we could, without rending society to pieces, and almost putting an end to our species, adopt this code. But then if we reject the code as a whole, why should we adopt a part of it? If we are bound to take one part, we are equally bound to take the whole; if we reject the whole we are not at liberty to take a part, without giving a sufficient reason for making the distinction. What sufficient reason, then, can we give? We may urge the interests of society. The consequences of breaking the Sabbath are inferior when compared with the consequences of the commission of murder. Society must be protected against the murderer: while it would be injustice to compel the Jew to observe the Sunday in the manner we do, because our Saturday is his Sabbath; and he conscientiously observes it. Society is not answerable for the belief of the Jew, and has no right to interfere with his observance or non-observance of the Sabbath. Here then is a distinction between the crime of murder and of Sabbath breaking in their effects upon Society; and moreover it is evident that there are cases—the case of the Jew that we have instanced—in which we have no right whatever to award any punishment to the latter. But the distinction which exists between Sabbath-breaking and the crime of murder, must not be mistaken. It is just this: society has a right to be protected against the murderer, while it has not, in all cases, the right to punish the non-observance of the Sabbath, because it could not do so without persecuting some of its members. But because society has a right to be protected against the murderer, it does not follow that it has a right to take the life of the murderer, unless its safety depend upon its doing so. By the safety of Society we mean not merely the necessity of restraining the convicted murderer, and preventing him committing more murders, but the safety of Society demands that we inflict on the culprit such punishment as will tend to discourage the crime of murder generally, and we have not a right to inflict any other. This is what the safety of Society demands. The question, then, is this: does the punishment of death afford greater security to society by more effectually deterring from the commission of murder than any other punishment would? And this question, it appears to us, experience alone can decide. The State of Michigan is now testing it. One of the Swiss Cantons once tried a similar experiment, and the result, which we cannot state precisely, is said to have been favourable to abolition. Writers on this subject are generally dogmatic, and decide the question, without proof, either on one side or the other. We choose to take a different course. If there be any *positive* evidence by which to decide the question, it is not within our reach; and we never decide a great question without evidence. We see no rational objection to trying the experiment of abolition; as that is the only safe way of settling the question.

The following statistics, taken from a work written by Oscar King, of Sweden, exhibit a comparison of Capital punishment in different countries, but they prove nothing for or against that mode of punishment, that we can discover:—

	Inhabitants.
Spain, one execution yearly, in.....	125,000
Sweden, do do	172,000
Norway, from 1832 to 1834, inclusive, one execution yearly, in.....	720,000
Do from 1835 to 1837, ...	none.
Ireland, one execution yearly, in.....	200,000
England, do do do	250,000
France, do do do	447,000
Baden, do do do	400,000
Do during the year 1831, only one in	1230,000
Austria in Germany, one execution yearly, in.....	840,000
Wurtemberg, one execution yearly, in..	750,000
Pennsylvania, do do do ..	820,000
Bavaria, do do do	2,000,000
Russia, do do do	1,700,000
Vermont, since 1814, none.	
Belgium, since 1830, none.	

OUR SURPLUS GRAIN.

Last year Canada received an addition of 25,000 persons to her population. Each of these would consume on an average, eight bushels of grain in the first year; the aggregate amount thus consumed would be 224,000 bushels. In addition to this we exported 534,747 bushels of wheat, 555,602 bbls. of flour, which, supposing each bbl. to contain five bushels, would be 3,332,757 bushels. The quantity consumed by emigrants and the amount exported would make 3,556,757 bushels of wheat over and above what was required to feed the population who were engaged in its production, and all others residing in the country. Every year our surplus products increase with our population as will be seen by the following tabular statement of exports by sea from Montreal and Quebec during the last nine years.

	Flour. Barrels.	*Wheat.* Barrels.	*Oats.* Bushels.	*Peas.* Bushels.
1833.....	59,204	.....	.....	1,415
1839.....	48,427	3,346	.....	2,855
1840.....	315,612	142,059	.....	59,878
1841.....	356,210	562,862	.....	123,574
1842.....	294,799	204,107	5,665	78,985
1843.....	209,957	144 133	3 651	83,318
1844.....	415,467	282,183	24,574	130,355
1845.....	442,228	396,252	53,530	220,912
1846.....	555,602	534,747	46,060	216,339

If our surplus products increase at this ratio, and if we did not *export* a single kernel of grain, we should *then* be able to feed about five hundred thousand emigrants. Otherwise, it is a most lamentable fallacy into which some have fallen who assert that we are prepared to receive an addition of half a million to our population in one year. We must either export this surplus, or if it be consumed by emigrants, they must be such as are able to pay for it, not merely in labour, for so large an amount of labour could not be absorbed, but in money, which we must have if the grain be consumed in the country, to pay for our imports.

We could probably absorb 40,000 emigrants bringing nothing but their labour amongst our settled population. But if a much greater number than this come in one year, not only would the proper relation of labour and capital be disturbed, but the difficulty would be enhanced by the fact that the imported labour would be of a kind not adapted to the country; the labourer would have to undergo an apprenticeship. It is utterly impossible that any thing like half a million of people could be settled in Canada in one year, without the hazard of their suffering evils which would be severely felt by the whole population.

The London *Chronicle* states that Ireland alone will pour probably 300,000 of her population upon the shores of America during the present year, and that of this number one-fourth will come to Canada. The question which then arises is a very simple one: shall we have in the country provisions to feed 75,000 emigrants? We know not how much grain may be stored by merchants for shipment; but we are decidedly of opinion that the farmers of the country have very little more than will be required to supply their own wants until next harvest. It is quite time that we should look to the position in which we may soon be placed; and take such steps as will prevent the probability of the famine being transferred to our shores; as it will be if, at the time when we receive an addition of 75,000 to our population, we shall have emptied our graneries into the markets of Europe.

POST OFFICE REGULATIONS.

We have to complain of somebody, we should like to know who, for the non-transmission of our papers as they are directed. We have six subscribers at the village of *Bronte*, to each of whom we sent a copy of our last number, separately folded and directed, and the whole six done up in one wrapper, with "BRONTE" written on the outside. One of these subscribers writes us:—"Your last number has not been received here by any of the subscribers except myself." Now, what is the reason of this? The package must have been broken open by some one, and the papers taken out, for if the direction had been mistaken, our correspondent would not have received his—it would have gone with the rest. We do not know whether our cotemporaries have occasion to complain of the same evil; perhaps it is because we are just entering the field, that the Post Office people take such liberties with us. We shall feel obliged to our subscribers in letting us know whenever there is any irregularity in the receipt of their papers, and we shall endeavour to ferret out the cause of it. Our list is not yet so large (we are sorry to say) that we need have any difficulty in sending a copy of our paper to each subscriber as soon as it is issued. The fault lies in the carelessness or misconduct of those connected with the Post Office. A subscriber at Bradford writes that he has only received one number. Now, it is utterly impossible that the mistake could have occurred with us, for his name is upon our list, and we recollect distinctly writing it each time of issue.

We sincerely hope that at the next meeting of Parliament, our Legislators will *do* something besides call each other names, and that they will establish a more vigorous, more complete, and more *vigilant* system in our Post Office. With regard to the indifference that has been shown to the wants of the people under the present system, we may adduce another instance in the case of the village we have mentioned. Our correspondent goes on to state:—

"We have been shamefully used in this place with regard to a Post Office; we have been petitioning and writing to the Post Office Department for the last two years, and urging in every reasonable way the establishment of a Post Office in this place; our petitions have been signed by the most influential and respectable men we have, unanimously, but all to no effect, as we have been put off by the most trifling excuses. That this place is deserving of such an establishment may easily be supposed from the fact, that about four months ago, despairing of getting a Post Office, we established an independent one, and have since had our communications brought from the nearest Post Office weekly. This of course costs something, which added to *tremendous* rates of postage, makes our postage expenses rather a heavy item."

IMMIGRATION.—A Society has has been formed in this city, under the auspices of H. J. Boulton, Esq., called the Emigrant Settlement Society, whose object is to render assistance to, and find employment for emigrants on their arrival. We doubt the ability of the Society to command resources sufficient to ensure complete success without the assistance of the Legislature and the co-operation of the benevolent in other places. We shall enter into a consideration of this subject in our next.

(From the Halifax Guardian.)

RETROSPECTION.

In youth I look'd back to my childhood's sweet hours,
And thought on the dear home, its gardens, and flow'rs,—
The pond where I dabbled—the gate where I swung—
The old apple tree—with its tempting fruit hung —
The fields where I wander'd oh! then they were green,
The nut-grove, with the summer sky gleaming between;
And there was my sister, with eyes just as blue,
And hair like the sun-tinted nut clusters, too!
A step like a fairy's—a heart loving and wild—
Yet gentle, as ever belong'd to a child,—
A voice of rich music, which constantly flung
The merry heart's laughter wherever it rung!
But, alas! I had seen that sweet blossom decay,
The rose-bush of health from the cheek fade away,
The eye grow dim—brighten intensely, then close,
And it waken'd no more from that dreamless repose!
Oh then I was sad-hearted, my life seem'd o'ercast,
And my heart made its home, its bright home in the Past!

Then manhood came on, with its sorrows and cares,
Its friendships, its longings, its hopes and despairs,
And I wish'd for my sister again at my side,
To soothe with her love, with her counsel to guide;
And I mourn'd that the sweetest the soonest should fade,
And its hallow'd home still in the Past my heart made!

But a light dawn'd upon me! that smile, love of thine,
Would have won from its grief a heart sadder than mine;
Oh blest be the hour I first look'd upon thee,
And blest be the true heart thou gavest to me!
The home which thou brightenest a paradise seems,
And my fairy-land is no longer in dreams!
My children, and thou my sweet wife, and my home,
I could find no such treasures where'er I should roam!
And do I look back to the Past with a sigh!
Yes—sometimes a tear drop will start to mine eye,
When I think of the true-hearted long gone to rest,
How they would rejoice could they see me so blest.

I hallow the past, love my childhood's home yet,
And the beautiful dead I can never forget;—
Now, my heart looks for joy in bright hours to come,
But finds in the heaven of Present its *home!*

DORA.

Literary Department.

THE BAY OF SAN FRANCISCO.

We publish the following clear and striking description of the finest harbour in the Western World, as well for the value of the information it affords as for the special interest which (in consequence of the Mexican War) at this moment attaches to that part of the World. The American modesty displayed in the latter part of the article we can overlook, and we have no doubt our readers will be equally indulgent to the foible of National vanity.

The Bay of San Francisco is the glory of the western world. Its mouth lies in latitude 37 degrees 58 minutes. The water on the bar is eight fathoms at low tide. The mountains on either hand rise several hundred feet above the sea, and form fine land-marks in foggy weather to point out the bar, and the channel into the harbor.—The capes at the ocean's edge are about two miles apart; always verdant and refreshing to the eye: and, as you go up the passage the little streams tumbling from the rocks among the greenwood, and the wild game standing out on the cliffs or frolicking among the brush, and the seal barking on the water, give promise of pleasure and rest from the toils of the sea.

This passage is about five miles in length. Four and a half miles from the capes it narrows considerably, and presents a bold point north and south. *On the southern one stands the Presido* or fort, on which this mighty harbor condescends to depend for protection. The fort is in ruins — A dozen old rusty guns in the care of thirty or forty half-clad half-bred soldiers, usually foraging in squads of five or ten among the neighboring Missions; one side of its walls tumbled down, and another strongly disposed to plunge into the sea, and not the tenth of a true soldier's heart beating for a hundred miles around, is a true summing of its present strength.

The house of the commandant, situated in one corner, is a respectable whitewashed pile of mud and bricks. On the other corner of the same side is the chapel, also built of mud: a filthy place for worship. On another side are artificers' shops and a prison. The two other sides are broken down, not by the flying metal of brave conflict, but by the gentle pattering of the rains; the ruins covered with bones' not the bones of fearless men, who have fallen in the breach, throwing their gushing blood in the face of a conquering foe; but the bones of beeves that have been gnawed by the garrison during the years of valorous eating. Densely manned, also, are these piles of adobie and osseous ruins, not with rank and file of mailled warriors, but with dogs, vultures, and jackals. This is Fort San Francisco, one of the strongest posts in the Californias.—Heaven help its dogs, vultures, and jackals, in case of a seige!

Six miles from the capes at the mouth, and at the point where it begins to open into the Bay, are two small islands on which forts might be conveniently built, that would command the narrows, and also the entrance into both the north and south parts of the bay. Indeed, the whole bay is so studded with islands easily fortified, and so overhung by headlands, which of themselves are fortresses, that a party in possession of them could hold the Bay against vast odds, and in comparative security. From the narrows to the north part of the Bay is twenty-four miles, and to the south-eastern point thirty-five miles.

The southern half of the Bay varies from fourteen to fifteen, the northern half from four to twenty miles in width. In every part of this large tract of water is good holding ground, and on all its shores are coves in which vessels of any tonnage may be snug and secure from storms, within a cable's length of the land. In the NW. corner of the Bay is the inlet of the Rio Sacramento. It is about one and three fourth miles wide for the distance of seven miles, and then spreads out into a bay seven miles wide, and twelve in length, when it narrows down to four miles for the distance of two miles and a half, then widens to seven or eight miles to the distance of eleven miles, with islands in the centre, then narrows to four miles for the distance of three miles, and then it widens into a bay about twenty miles north and south, and about the same distance east and west, studded with nine islands. On the east of it between the mouth of the Sacramento and the Bay, lies one about fifteen miles in length, NE. and SW., and of a breadth varying from three miles to ten. All these islands are low and marshy. On the southern part of this large island comes in the Rio San Joaquim, and on the northern point of it is the northern mouth of the Sacramento.

On the south side of the promonotory on which stands the fort, Castillo de San Francisco, is a little village celled Yerba Bueno. As the harbor in which foreign vessels refit and purchase supplies, lies in front of Yerba Bueno, it will scarcely be imparting any fact not legitimately inferable from their known character, to say that the Yankees have built and inhabited this town These descendants of the kings and nobles of the old Saxon Heptarchy, knighted and enobled anew by the physical and mental conquests over the wilderness of America and over the oppressions of their Norman conquerors, the reigning families and nobles of Great Britain have built up an empire of mind on which the sun never sets. In the Bay of San Francisco is Yerba Bueno. In the Sandwich Islands a nation is spoken into being.—The Chinese seas are burdened with its ships. On the coast of Africa the emancipated slave unfurls the banner of Freedom over the fortunes of an independent national existence, and almost the entire habitable parts of this great continent are enjoying the impulses to human Freedom which the American Saxons sent out to the race on the Fouth of July, 1776. These Yankees at Yerba Bueno employed themselves in their characteristic business of doing everything.

The surpassing beauty and magnificence of this harbor of San Frucisco can never be properly estimated by being viewed from the land. One must approach it from the sea; have a full view of the lofty shores north and south, rising at intervals into lofty peaks girded at their bases with primeval forests of evergreen cedars and pines mottled with the boughs of the oak, the ash, and the plane. The bar which springs from the northern headlands of its entrance, and, running beneath the blue waters of the Pacific from five to nine fathoms, causing a belt of surf to roll across the mouth, must be passed. A breeze must bear your bark over and along the dangerous rocks three quarters of a mile inside on the right, quarrelling with the surges; and onward four miles between the projecting cliffs, overhanging peaks and verdant woodlands filled with starting deer and other game, to the harbor at the narrows beneath the fort; and thence onward till past the fort and the islands lying across the entrance; and Bay is seen! a broad sheet of water stretching off, north and south, the largest and best harbor of the earth, surrounded by a country, partly wooded, and partly disposed in open glades and prairies of the richest kind, covered with the flocks and herds of the Missions, and deer, and elk, and bears. And amid the beautiful hills of the south and east are Santa Clara, El Pueblo San Jose, and Mission San Jose; and on the southern peninsula, five miles miles wide, is San Francisco, Yerba Bueno, the trading-house of the Hudson Bay Fur Company, the Presido and the Castillo; on the northern peninsula is San Rafael, and in the north San Francisco Solano; a group of beauty and grandeur, that knows no superior in any clime.

WHITE AND BROWN BREAD.

Several years ago, we threw out the surmise, that the separation of the white from the brown parts of wheat grain was likely to be baneful to health. We proceeded upon theoretical grounds, believing that providence must have contemplated our using the entire grain, and not a portion only, selected by means of a nicely arranged machinery. It struck us forcibly, that to go on for a long course of years, thus using a kind of food different from what nature designed, could not fail to be attended with bad consequences. We have since learned that our views have some recognized support in science. The following paragraph from a recent pamphlet will at once serve to keep the subject alive in the minds of our readers, and explain the actual grounds on which the separation of flour is detrimental. "The general belief," says the writer, "is, that bread made with the finest flour is the best, and that whiteness is the proof of its quality; but both these opinions are popular errors. The whiteness may be, and generally is, communicated by alum, to the injury of the consumer; and it is known by men of science that the bread of unrefined flour will sustain life, while that made with the refined will not. Keep a man on brown bread and water, and he will live and enjoy good health; give him white bread and water only, and he will sicken and die. The meal of which the first is made contains all the ingredients necessary to the composition of nourishment to the various structures composing our bodies. Some of the ingredients are removed by the miller, in his efforts to please the public; so that fine flour, instead of being better than meal, is the least nourishing; and to make the case worse, it is also the most difficult of digestion The loss is, therefore, in all respects, a waste; and it seems desirable that the admirers of white bread, but especially the poor, should be acquainted with these truths, and brought to enquire whether they do not purchase at too dear a rate, the privilege of indulging in the use of it. The unwise preference given so universally to white bread, leads to the pernicious practice of mixing alum with the flour, and this again to all sorts of adulterations and impositions; for it enables bakers who are so disposed, by adding more and more alum, to make bread made from the flour of an inferior grain look like the best or more costly, and to dispose of it accordingly; at once defrauding the purchaser and tampering with his health. Among the matters removed by the miller are the large saline substances, which are indispensible to the growth of the bones and teeth, and are required, although in a less degree, for daily repair. Brown bread should therefore be given to nurses, and to the young or the growing, and should be preferred by all, of whatever age, whose bones show a tendency to bend, or who have weak teeth. It is believed that brown bread will generally be found the best by all persons having sluggish bowels and stomachs, equal to the digestion of the bran. But with some it will disagree; for it is too exciting to irritate bowels, and is dissolved with difficulty in some stomachs. When this happens, the bran should be removed, either wholly or in part; and by such means the bread may be adapted, with the greatest ease, to all habits and all constitutions."

Mr. Smith, in his late remarkable work on fruits and farinacia as the food of man, gives some illustrations of this doctrine. "Bulk," he says, "is nearly as necessary to the articles of diet as the nutrient principle. They should be so managed that one should be in proportion to the other. Too highly nutriive is probably as fatal to the prolongation of life and health, as that which contains an insufficient quantity of nourishment." It is a matter of common remark among old whalemen, that, during the long voyages, the coarser their bread, the better their health. "I have followed the seas for thirty-five years," said an intelligent sea-captain to Mr. Graham, "and I have been in almost every part of the globe; I have always found that the coarsest pilot-bread which contains a considerable quantity of bran, is decidedly the best for any men." "I am convinced, from my own experience," says another captain, "that bread made of the unbolted wheat meal is far more wholesome than that made from the best superfine flour the latter always tending to produce constipation."

Captain Dexter of the ship Isis, belonging to Providence, arrived from China, in December, 1804. He has been about one hundred and ninety days on the passage. The sea-bread, which constituted the principal article of food for his men, was made of the best superfine flour. He had not been long at sea before his men began to complain of langour, loss of appetite and debility. *These difficulties continued to increase the whole* voyage; and several of the hands died on the passage of debility and inanition. The ship was obliged to come to anchor thirty miles below Providence; and such was the debility of the men on board, that they were not able to get the ship under weigh again, and the owners were under the necessity of sending men down from Providence. When she arrived the owners asked Captain Dexter what was the cause of the sickness of his men? He replied "The bread was too good."—[Chambers' Edinburgh Journal.

QUANTITY OF FOOD CONSUMED BY A MAN.

The difference between eight ounces and a half of boiled meat and ten ounces appears very trivial; *but if the greater of the two quantities be persevered* in regularly every day for the term of a man's adult life of half a century, it may excite a little surprise in the person who practices it to learn that he will have consumed a flock of sheep, consisting of about fifty-three head, in excess above what he ought to have made use of. In a life of sixty-five years, allowing eight ounces and a half per day for fifty years, two-thirds of that quantity for ten years, and three ounces a day for three years of childhood, the total animal food amounts to 350 sheep. If to this be added the excess above mentioned, the number of sheep the cooked meat of which is devoured by one man during a life of sixty-five years, is about 409; along with five tons of potatoes, about the same of turnips or other vegetable, nine tons weight of common drink, and six tons weight of wine, at one pint per day for 30 years only; thus for dinner alone about thirty tons weight of solids and liquids must have passed through the stomach. Inordinate work will wear out any machinery before its time, especially if the work performed be of a peculiarly wearing character. Whether it is advisable to add the fifty-three unnecessary sheep to one's dinner, is a question which every reader will answer to himself as he thinks proper. The food of old Parr, who died at 153 years of age, consisted of cheese, coarse bread, milk, and small beer. Would it have made no difference in the duration of his life if he had swallowed 1050 sheep, for about this number would have been his share at the usual rate, along with his twenty tons of wine? It may assist in drawing a conclusion, to recollect that when he was brought to London, and lived in splendour, "fed high, and drank plentiful of the best wines," he soon died; and his death was generally attributed to that cause, for he had vigour of body "to have lived a while longer," as the reporter says.—[Donovan's Domestic Economy.

INFLUENCE OF WAR.

Dr. Channing, in a discourse before a convention of Congregational Ministers, in Massachusetts, in 1816, used the following language in relation to the devastating influences attendant upon war:—

"The influence of war on the community at large, on its prosperity, its morals, and its political institutions, though less striking than on the soldiery, is yet most baleful. How often is a community impoverished to sustain a war in which it has no interest. Public burdens are aggravated, whilst the means of sustaining them are reduced. Internal improvements are neglected. The revenue of the state is exhausted in military establishments, or flows through secret channels into the coffers of corrupt men whom war exalts to power and office. The regular employments of peace are disturbed. Industry, in many of its branches, is suspended. The laborer, ground with want, and driven to despair by the clamour of his suffering family, becomes a soldier in a cause which he condemns, and thus the country is drained of its most effective population. The people are stripped and reduced, whilst the authors of war retrench not a comfort, and often fatten on the spoils and woe of their country.

But the influence of war on the morals of society is still more fatal. The suspension of industry, and the pressure of want multiply vice. Criminal modes of subsistance are the resource of the suffering. Public and private credit are shaken. Distrust and fear takes the place of mutual confidence. Commerce becomes a system of stratagem and collusion; and the principles of justice receive a shock which many years in peace are not able to repair.

WASTING EFFECTS OF YEAST IN BREAD-MAKING.—We quote the following paragraph from the *Economist* newspaper, for no practical suggestion for economizing the national stock of food at this afflicting crisis should be overlooked:—"It is a positive fact that throughout Great Britain and Ireland a quantity of flour sufficient for the supply of many thousands is every day destroyed, dissipated, and lost utterly to human use. This is the inevitable result of using yeast in the composition of bread. A portion of flour becomes decomposed in the process of fermentation, and passes off into the atmosphere in the shape of carbonic acid gas. As it escapes it puffs up the tenacious dough, and makes it spongy and light. This is the only end for which yeast is employed in bread-making; but the same object can be effected quite as well by other chemical processes, which do not occasion any loss of substance to the flour. Dr. Dundas Thompson has ascertained, by experiments on a large scale, that in a sack of flour there is a difference in favour of bread made without yeast to the amount of thirty pounds thirteen ounces; or, in round numbers, a sack of flour would produce

107 loaves of unfermented bread, and only 100 loaves of fermented bread of the same weight. Hence it appears, that in the sack of flour by the common process of baking, seven loaves or six and a half per cent. of the flour are driven into the air and lost."—*Nonconformist.*

Reigning Sovereigns.—Of fifty-two sovereigns reigning in Europe, two have reached their 70th year—the King of Hanover, the oldest sovereign in Europe, and the King of the French. Of the other sovereigns, thirteen are between 60 and 70 years of age, fourteen from 50 to 60, eleven from 40 to 50, eight from 20 to 30, and two have not reached their 20 year, namely, the Queen of Spain, who is 16 years 3 months, and the Prince of Waldeck, who is not yet 16. Of all the sovereigns, the Prince of Schaumbourg-Lippe has reigned the longest time, if his minority is counted. He has reigned for nearly 60 years. Two have reigned more than 40 years, equally counting their minority; four for from 30 to 40 years; the fifteen other sovereigns, of whom three ascended the throne during 1845, have not reigned more than 10 years.

Making Candles.—Many farmers are accustomed to make up their supply of candles for the year about this time; and the common mode is to make them by dipping. *The New York Farmer and Mechanic* gives the following rules for doing this, which are declared to be a great improvement upon the common method. It is common, with unskilled persons, in making candles, to heat the tallow boiling hot, and to dip the wicks into it very rapidly; the consequence is, that the tallow runs down the candle, leaving the top of it very small, and the bottom with an immense butt, which is farther formed into a bell shape by the dripping from it. The rule given is that the tallow should not be so hot but that a finger may be dipped into it without inconvenience, and the dipping should be done in a very deliberate manner, particularly the lifting out, which should occupy nearly a minute each time. The tallow will thus be taken on readily and will cool at once, without any running down and the candle will be of even size, and without the butt, which is to be cut away before it is used.

Gum Arabic.—In Morocco, about the middle of November, that is after the rainy season which begins early in July, a gummy juice exudes spontaneously from the trunk and principal branches of the acacia tree. In about fifteen days it thickens in the furrow, down which it runs, either in a vermicular or worm shape, or more commonly assuming the form of round and oval tears, about the size of a pigeon's egg, of different colours, as they belong to the white or red gum tree. About the middle of December, the Moors encamp on the border of the forest, and the harvest lasts six weeks. The gum is packed in very large sacks of tanned leather, and brought on the backs of bullocks and camels to certain ports, where it is sold to the French and English merchants. The gum is highly nutritious. During the whole time of the harvest, of the journey, and of the fair, the Moors of the desert live almost entirely upon it; and experience has proved that six ounces of gum is sufficient for the support of a man during twenty-four hours.—[New York Mechanic.

A Shower of Needles.—A Canadian *voyageur* from Lake Superior, relates a remarkable instance of the power of magnetism. It is known that in the copper country, and particularly on Middle Island, the attractive power of the loadstone, abounding in that region, exercises a wonderful influence upon small particles of iron and steel. A mariner's compass becomes almost useless, and the magnetic needle points vertically. Upon one occasion the voyageur declares he had his penknife and packing needle attracted out of his pocket; and on opening a small paper of finer needles, they actually flew out of his hands in a shower, alighting on a loadstone rock, some twenty feet distant. It was an incident of this character which led to the discovery of the vast quantities of loadstone in that region.—[Roch Republican.

Lunar Influence.—Duhamel cut a great many trees in all ages of the moon, but under other circumstances precisely similar; but in all his experiments discovered no difference in the timber. Chauvalon, at Martinique, tried accurate experiments on many kinds of vegetable in the same way, planted at different times in the lunar month, but discovered no appreciable difference.—[Albany Cultivator.

—o—

A STORY WITH A MORAL.

When Charles the Second chartered the Royal Society, it is narrated of him that he was disposed to give the philosophers a royal, but at the same time a wholesome lecture. "Why is it, my lords and gentlemen," said he, "that if you fill a vessel with water to the very brim, so that it will not hold a single drop more, yet, putting a turbot into the water, it shall not overflow the vessel?" Many were the sage conjectures—that the fish would drink as much water as compensated for his own bulk—that he condensed to that amount—that the air-bladder had something to do with the phenomena—and a hundred others, which were propounded and abandoned in their turn, much to the amusement of the "merry monarch." At length Mr. Wren (afterwards Sir Christopher) modestly asked, "But is your Majesty *sure* that such would be the case?" "Aye, there," exclaimed his Majesty, laughing, "you have it; always, gentlemen, find out whether the thing be true before you proceed to account for it; then I shall not be ashamed of the charter I have just given you."

Scientific.

SURGICAL OPERATIONS without PAIN.

The proof of the value of the recent discovery for producing temporary insensibility to the effect of pain, is daily increasing and coming nearer to us. We have not yet heard of any instances of success in this City, though we understand some attempts have been made to administer the Ether. The following is from the Cobourg *Star*:—

On Tuesday last we saw George Goldstone, Esquire, Surgeon, of this Town, administer Ether to a patient previous to performing a very painful operation. The inhalation was only for a minute, when the patient became unconscious of pain, and the operation was performed without drawing from her any signs of feeling. We understand that Mr. Goldstone has administered the ether in many cases, and has not yet met with a single failure in rendering the patient unconscious of pain. In the simple matter of tooth drawing alone it is invaluable.

—o—

Water Raised by Waves Through Valved Tubes.—A feasible and obvious application of Harvey's grand discovery of the use of valves in raising blood through the veins, has just been suggested by a correspondent of the Mechanic's Magazine, namely, the raising of water from the sea, by the lash of the waves through valved tubes into reservoirs on a high level, for the acquisition, of course of an unlimited supply of water power, to be turned to any requisite purpose. The inventor proposes to test the practability of the principle on Southsea Beach.—[Builder.

—o—

A New Destructive.—The New York True Sun understands from a gentleman, who has recently returned from Washington, that the government has just concluded a negotiation for the purchase of a most formidable weapon of destruction in the shape of a rocket, which can be impelled by one man, and yet will destroy life and property at a distance of two miles. This weapon was invented by an Englishman, and offered to the Government, but not adopted by them, when an American saw its destructive properties, and purchased the patent right for £1000. He then returned to the United States, and offered it to the War Department, and after it had been subjected to experiments in the presence of all the distinguished military and naval officers, it was approved of and purchased for $2000. A company of artillerists are to be drilled expressly to the use of this weapon, and despatched to the seat of war forthwith.

—o—

THE SUBMARINE LIFTER.

A machine of this name has recently been invented by one of our townsmen, for wresting the spoils from the grasp of old Neptune. It is a contrivance by which the "villainous saltpetre," and other combustibles from which gas is generated by ignition, are employed in raising from the deep wrecks, anchors, merchandise rocks, snags, and other ponderous bodies. It consists of a large vessel containing the materials for producing the gas and the means of igniting them. When the engine is prepared for a descent, it is let down, filled with water, to the desired place, and attached to the weight to be raised. The cord connected with the fire lock within and extended to the surface of the water is then pulled, the gas is formed immediately and forces the water out through an aperture in the bottom of the vessel. The gas then lifts with a force of more than sixty pounds to the cubic foot.

The immense power of an accumulation of these engines, the simplicity and cheapness of their construction, and the little labour and difficulty attending their operation, must, it would seem, make them an invaluable item in the marine apparatus of every harbour in the world.—[Worchester (Mass.) Spy.

—o—

Snow Plough.—There has been a good deal said respecting the difficulty which would be encountered in travelling on railways in the Colonies in the winter months, from the heavy falls of snow. It will be seen by the following extract copied from a late N Y paper, that an ingenious machine has been made in the United States, which will remove all apprehensions on that subject:—"The Baltimore and Ohio Railroad have an engine of 25 tons, which takes a train of empty cars up the Maryland Mining Company's road to Frostburg, 9 miles from Cumberland County (having an ascent of 130 feet per mile, the steepest railroad in the country,) and brings down a train of coal. On the 20th Dec. there was a fall of snow two feet deep on a level, and much drifted; their heavy Engines, with a newly constructed plough that only cost $50 took the cars up this steep road through drifts of snow 8 and 9 feet deep; thus showing triumphantly the capacity of railroads for winter service."

Remarkable Phenomena.—Last evening a very extraordinary state of electricity existed in the atmosphere. A driving snow storm prevailed, during which there were loud thunder-claps and frequent sharp flashes of lightning. About 7 o'clock a flash and report similar to that of a pistol occurred in the telegraph office,—the instrument was of course inoperative, and we received no communication.—[Rochester American.—March 3.

Upwards of 200,000 pounds of very rich copper ore has been raised from a recently discovered mine in Wisconsin.

For the Ladies.

STANZAS.

Oh! tell me not—I cannot bear
To think this world a world of care;
So bright, so beautiful, and fair—
Some sunny spots are surely there!

Let others speak with bitterness,
And call it but a wilderness
A desert's lone sad dreariness,
And all within it weariness;

Be mine to cull the fairest flowers
That blossom in this land of ours,—
When weary, rest in fragrant bowers,
And pass away life's leisure hours!

And still with pleasure love to blend,
Oh! let me find on earth a friend,
With whom my happy days to spend,
Till life itself with all things end!

Then chilling blasts in vain may blow,
Defended from the cold and snow,
This bosom shall with transport glow,
Responsive to the claims of woe!

Then tell me not—I cannot bear
To think this world a world of care;
So bright, so beautiful, and fair—
Some gentle hearts are surely there!

Ellen T——

A BEAUTIFUL FIGURE.

Life is beautifully compared to a fountain fed by a thousand streams that perish if one be dried. It is a silver cord twisted with a thousand strings that part asunder if one be broken. Frail and thoughtless mortals are surrounded by innumerable dangers, which make it much more strange that they escape so long, than that they almost perish suddenly at last. We are encompassed with accidents every day to crush the mouldering tenements that we inhabit. The seeds of disease are planted in our constitutions by nature. The earth and atmosphere whence we draw the breath of life is impregnated with death—health is made to operate its own destruction! The food that nourishes contains the elements of decay; the soul that animates it by a vivifying fire tends to wear it out by its own action; death lurks in ambush along our paths. Notwithstanding this is the truth, so palpably confirmed by the daily examples before our eyes, how little do we lay it to the heart! we see our friends and neighbours perishing among us, but how seldom does it occur to our thoughts that our knell shall perhaps, give the next fruitless warning to the world!

—o—

WIVES OF WORKING MEN.

Speaking of the middle ranks of life, a good writer observes—there we behold a woman in all her glory; not a doll to carry silks and jewels not a puppet to be dandled by fops, an idol of profane adoration, reverenced to day, discarded to-morrow; admitted, but not respected; desired, but not esteemed; ruling by passion, not affection; imparting her weakness, not her constancy to the sex which she should exalt, the source and mirror of vanity; we see her as a wife, partaking the cares, and guiding the labours of her husband, and by her domestic diligence spreading cheerfulness around her; for his sake sharing the decent refinements of the world without being vain of them; placing all her joy, all her happiness in the merited approbation of the man she loves. As a mother, we find her the affectionate, the ardent instructress of the children she has tended from their infancy; training them up to thought and virtue, to meditation and benevolence, addressing them as rational beings, and preparing them to become men and women in their turn.—Mechanic's daughters make the best wives in the world.

—o—

HOW TO SPEAK TO CHILDREN.

It is usual to attempt the management of children either by corporal punishment, or by rewards addressed to the senses, and by words alone. There is one other means of government, the power and importance of which are seldom regarded—I refer to the human voice. A blow may be inflicted on a child, accompanied with words so uttered, as to counteract entirely its intended effect; or the parent may use language, in the correction of the child, not objectionable in itself, yet spoken in a tone which more than defeats its influence. Let any one endeavour to recall the image of a fond mother, long since at rest in heaven. Her sweet smile and ever clear countenance are brought vividly to recollection; so also is her voice; and blessed is that parent who is endowed with a pleasing utterance. What is it which lulls the infant to repose? It is not an array of mere words. There is no charm, to the untaught one, in letters, syllables, and sentences. It is the *sound* which strikes its little ear, that soothes, and composes it to sleep. A few notes, however unskilfully arranged, if uttered in a soft tone, are found to possess a magic influence. Think we that this influence is confined to the cradle? No; it is diffused over every age, and ceases not while the child is under the parental roof. Is the boy growing rude in manner, and boisterous in speech? I know of no instrument so sure to control these tendencies, as the gentle tone of a mother. She who speaks to her son harshly, does but give his conduct the sanction of her own example. She pours oil on the already raging flame. In the pressure of duty, we are liable to utter ourselves hastily to children. Perhaps a threat is expressed in a loud and irritating tone; instead of allaying the passion of the child, it serves directly to increase them. Every fretful expression awakens in him the same spirit which produced it. So does a pleasant voice call up agreeable feelings. Whatever disposition, therefore, we would encourage in a child, the same we should manifest in the tone which we address it.

Scraps.

A very beautiful and wealthy young lady of Philadelphia, received the following valentine lately. The writer has probably seen the play of the Lady of Lyons, and become highly imaginative:—"You are above me, lady, but I can look up to you as I do to the stars, and worship you as I do them. You are rich and I am humble, but God is for us all, and we worship him at the same shrine. You would spurn me if you knew me, for I am rich in poverty, yet despite your scorn, I kiss you daily in my fancy, and nightly in my dreams. You might forbid me to love you, but you could not change my heart, nor make yourself less lovely than you are; and I would love you, even though you should sell the hand I adore, to add gold to the heaps you have. You will read this and wonder, and be pleased, even in your pride, for it is sweet to be beloved, though it may be by one beneath you. Farewell.

"I resolve" says Bishop Beveridge, "never to speak of a man's virtues before his face, or of his faults behind his back:"—a golden rule, the observance of which would at once banish flattery and defamation from the earth.

Swift preached an assize sermon, and in the course of it was severe against the lawyers for pleading against their consciences. After dinner a young counsel said some severe things about the clergy, and did not doubt, were the devil to die, a parson might be found to preach his funeral sermon. "Yes," says Swift, "I would, and would give the devil his due, as I did his children this morning."

"Mrs. Squigs, how's your husband this afternoon?" "Well, the doctor says as how as if he lives till mornin' he shall have some hopes of him; but if he don't live till mornin', he shant have no hopes."

Regret.—An habitual drunkard, having found in a dream a cup of excellent wine, set about warming it to enjoy it with more gusto. But just as he was about to quaff the delicious and refreshing draught, he awoke. "What a fool I am!" said he, "why was I not content to drink it cold?"

A western stump orator, recommending himself to his constituents, said—"If I am elected to this office I will correct all abuses, purge out all corruption, and go through the enemies of our party like a rat through a new cheese."

"A Genoese lady was questioning one of Tuscany on the number of her lovers. 'Just at present (replied the fair Tuscan) I have but one!'—'But one! (ejaculated the other,) what solitude? what ennui! Why, it is just like a husband!"

A craniologist once remarked that neither the cat nor the horse developed the organ of music. "Very strange," replied a hearer, "since we make music of the gut of one and the tail of the other."

"Jake," said an old farmer to one of his mowers, "do you know how many horns there are in a dilemma?" "No," replied Jake, "but I know how man horns there are in a quart of whiskey."

A Tough Job for a Portrait Painter.—"Represent me," said a gentleman to his artist, "with a book in my hand, and reading aloud. Paint my servant, also, in one corner, where he cannot be seen, but in such a manner that he may hear me when I call him."

Wood for Coffins.—Old maids should be buried in crab tree; old bachelors, in elder tree; married people, in pear tree; chronologists, in date tree; bricklayers and plasterers, in lime tree; pugilists, in box wood; schoolmasters, in birch; cowards, in trembling aspen; and the honest tar, in sturdy oak.

The World.—If we would enjoy ourselves, we must take the world as it is, mixed up with a thousand spots of sunshine—a cloud here and there—a bright sky—a storm to day, calm to-morrow—the chill piercing winds of autumn, and the bland reviving airs of summer.

A dentist was lately making a speech in one of the interior countries. "What do you ask for pulling a tooth, doctor?" exclaimed a fellow in the crowd. "I will pull your tooth for a shilling, and your nose for half the money," replied the speaker.

"What do you suppose the world thinks of us?" inquired a pedantic young gentleman of Dr. Johnson. "Why, I suppose," said the doctor, "that they think me a bull dog, and you a tin kettle tied to my tail."

Cement for Cisterns.—Ashes two parts, three parts clay, one part sand, mixed with oil, will make a cement as hard as marble, and impenetrable by water for ever.

We continue to receive the favourable notices of the Press. If the farmers would appreciate our efforts as warmly, we should soon boast of a long list of subscribers; we give our readers two or three of these notices as specimens of the rest:—

"THE CANADA FARMER.'—This paper is conducted remarkably well, and deserves the patronage of all our agricultural friends.—[Baptist Register.

We have received another number of the *Canada Farmer*. This periodical is got up with a good deal of talent, and merits encouragement. In addition to subjects, purely agricultural, it contains a large amount of instructive matter.[—Ham. Com Advertiser.

THE CANADA FARMER.—This pleasing and useful publication has been received. One must read it to be able truly to estimate its worth.—[Chatham Gleaner.

—o—

PROVINCIAL EXHIBITION

Of Farming Implements, Manufactures, Agricultural and Horticultural products, Fine Arts, &c. &c.

We continue the List of Premiums to be awarded at the Second Exhibition of this Society, to be held at Hamilton, on the Sixth and Seventh days of October next.

CLASS F—*Agricultural Implements.*

1st. best Wooden Scotch Plough, diploma and £2 10
2nd. best ditto..... ..... 1 10
3rd. best ditto, Farmers Library and Journal of Agriculture for 1846.

1st. best Iron Scotch Plough, diploma and 2 10
2nd. best ditto 1 10
3rd. best ditto, Farmer's Library and Journal of Agriculture for 1846.

1st. best Canadian or American Plough, diploma and 2 10
2nd best ditto..... 1 10
3rd best ditto, Farmer's Library and Journal of Agriculture for 1846.

1st. best subsoil Plough, diploma and.... 2 10
2nd. best ditto 1 10
3rd. best ditto, Gardner's Agricultural Dictionary.

1st. best pair of Harrows, diploma and.. 2 0
2rd. best d tto..... . 1 5
3rd. best ditto, 3 vols. Farmer and Mechanic.

1st best Fanning Mill diploma and.... . 2 10
2nd best ditto 1 10
3rd. best ditto, 3 vols. American Agriculturist.

1st. best horse-power Thrasher and Separator, diploma and 5 0
2nd. best ditto 3 0
3rd. best ditto, Farmers' Library and Journal of Agriculture for 1845.

1st. best Drill barrow, diploma and..... 2 10
2nd. best ditto 1 10
3rd. best ditto Gardner's Agricultural Dicionary.

1st. best Scarifier, diploma and..... 2 0
2nd. best ditto..... .... 1 5
3rd. best ditto, 2 vols. Farmer and Mechanic.

1st. best Straw-cutter, diploma and..... 2 10
2nd. best ditto 1 10
3rd. best ditto Gardner's Agricultural Dictionary.

1st. best Hay-rack for Waggon, diploma and..... ..... 1 10
2nd. best ditto 0 15
3rd. best ditto, Allan's American Agriculture.

1st. best Corn and Cob-crusher, diploma and 1 5
2nd. best ditto 0 15
3rd. best ditto 1 vol. Farmer and Mechanic.

1st. best Clover-dressing Machine, diploma and 2 10
2nd. best ditto 1 10
3rd. best ditto, 1 vol. Farmer's Library

1st. best Hemp and Flax dressing Machine, deploma and..... ..... 5 0
2nd. best ditto..... 3 0
3rd. best ditto 2 vols. Farmer's Library, 1846.

1st. best Horse-cart, diploma and..... 1 0
2nd. best ditto 0 15
3rd. best ditto 1 vol. Farmer and Mechanic.

1st. best two-horse waggon, diploma and.. 2 10
2nd. best ditto..... 1 10
3rd. best ditto, Farmer's Encyclopedia

1st. best Horse-rake, diploma and..... 0 15
2nd. best ditto..... ..... 0 10
3rd. best ditto, Farmer's Treasure.

1st. best Roller, diploma and..... 1 10
2nd. best ditto..... ... 0 10
3rd. best ditto 1 vol. Farmer and Mechanic.

1st. best Reaping Machine, diploma and.. 7 10
2nd. best ditto 5 10
3rd. best ditto, Ure's Dictionary of Arts.

1st. best Stump Extractor, diploma and.. 2 10
2nd. best ditto..... 1 10
3rd. best ditto, Gardner's Farmer's Dict.

1st. best Mowing Machine, diploma and.. 5 0
2nd. best ditto..... 3 0
3rd. best ditto, Transactions of the N. Y. Ag. Society.

1st. best Potatoe Digging Machine, diploma and..... 2 0
2nd. best ditto..... 1 10
3rd. best ditto, 2 vols. Farmer and Mechanics.

1st best Farm Gate, diploma and..... 1 10
2nd. best ditto..... 0 15
3rd. best ditto, 1 vol. Farmer and Mechanic.

1st. best model of Farm Fence, diploma and 0 15
2nd. best ditto 0 10
3rd. best ditto, Gardner's Farmer's Dic'y.

1st. best Cultivator, diploma and 1 10
2nd. best ditto 0 15
3rd best ditto, Allan's American Agriculture.

CLASS G—*Domestic Manufactures.*

1st best half-dozen Hand Rakes, dip. and £0 15
2nd. best ditto 0 10
3rd. best ditto, 1 vol. Farmer and Mechanic.

1st. best half-dozen Narrow Axes, diploma and 0 15
2nd. best ditto..... ..... 0 10
3rd. best ditto, Allen's American Agriculture.

1st. best half-dozen Manure Forks, diploma and 0 15
2nd best ditto 0 10
3rd. best ditto 1 vol. Albany Cultivator

1st. best half-dozen Hay Forks, diploma and 0 15
2nd best ditto..... 0 10
3rd. best ditto, 1 vol. American Agriculturist.

1st. best half dozen Scythe Snaiths, diploma and..... 0 15
2nd best ditto..... 0 10
3rd. best ditto 1 vol. Farmer and Mechanic.

1st. best Grain Cradle, diploma and..... 0 10
2nd best ditto..... 0 5
3rd. best ditto Gardner's Farmer's Dic'y.

1st. best half-dozen Grain Shovels, diploma and..... ..... 0 15
2nd. best ditto..... ..... 0 10
3rd. best ditto Farmer's Companion.

1st. best one-horse Pleasure Waggon, diploma and 2 0
2nd. best ditto 1 5
3rd. best ditto British Farmer's Instructor.

1st. best two-horse Pleasure Waggon, diploma and 2 10
2nd. best ditto..... 1 10
3rd. best ditto 1 vol Farmer and Mechanic.

1st. best set of Farm Harness, diploma and 1 10
2nd. best ditto..... 0 10
3rd. best ditto, Gardner's Farmer's Dictionary.

1st. best set of Pleasure Harness, diploma and..... 1 10
2nd. best ditto..... 1 0
3rd. best ditto 1 vol. Farmers and Mechanic.

1st. best travelling Trunk, diploma and.. 1 0
2nd. best ditto..... 0 10
3rd. best ditto 1 vol Farmer and Mechanic

1st. best side of Sole Leather, diploma and 0 15
2nd. best ditto..... 0 10
3rd. best ditto, 1 vol. Albany Cultivator.

1st. best side of Upper Leather, diploma and 0 15
2nd. best ditto 0 10
3rd best ditto, Allen's American Agriculture.

1st. best side of Calfskin, diploma and... 0 15
2nd best ditto..... 0 10
3rd. best ditto, Buell's Farmer's Instructor.

1st best side of Skirting, diploma and... 0 15
2nd. best ditto 0 10
3rd. best ditto, 1 vol. Farmer and Mechanic.

1st. best side of Harness, diploma and... 0 15
2nd. best ditto..... 0 10
3rd. best ditto, 2 vols. Farmer and Mechanic.

1st. best four or six panelled Door, diploma and..... ..... 0 15
2nd. best ditto 0 10
3rd. best ditto, 1 vol. Albany Cultivator.

1st. best Window Sash, not less than 12 lights, diploma and 0 15
2nd. best ditto 0 10
3rd. best ditto, 1 vol. American Agriculturist.

1st. best Fur Hat, diploma and 0 15
2nd. best ditto 0 10
3rd. best ditto, 1 vol. Farmer and Mechanic.

1st. best Fur Cap, diploma and..... 0 15
2nd. best ditto..... 0 10
3rd. best ditto, Gardner's Farmer's Dictionary.

1st. best Fur Robe, diploma and..... 1 0
2nd. best ditto..... 0 10
3rd. best ditto, Buell's Farmers' Instructor.

1st. best 3 specimens of Shoemaker's Work, diploma and 1 0
2nd. best ditto 0 10
3rd. best ditto, Farmer's Companion.

—o—

WESTPHALIA PLAN OF SMOKING HAMS.—A room in a garret; fire in the cellar; smoke gathered in a tunnel and lead to the smoke rooms by a small pipe: by the time it gets there all the heaviest part of the pyroligneous acid has condensed, and the smoke become cool. Nothing touches the ham but a pure, light, cool smoke, which is allowed to pass off by a number of small apertures, about as fast as it is supplied.—[N. Y. Farmer and Mechanic.

News Department.

HOME DISTRICT AGRICULTURAL SOCIETY.

At a meeting of this Society held in the Wardens Room in the Court House in this city a few days ago, E. W. Thompson, Esq., in the chair, it was resolved:—

"That the Spring Fair and Cattle Show do take place in the enclosed space in front of the New Gaol and Court House on the second Wednesday in May, being the 12th day of that month, and that the sum of £69 be appropriated for awarding premiums."

Messrs. Crew, Atkinson and Denison were then appointed a committee to make arrangements for the Dinner which is to take place on the day of the fair. We hope the farmers of the district, will make a point of attending.

—o—

Articles of Capitulation of Vera Cruz and the Castle of San Juan de Ulua.

PUENTE DE HORNOS,
Without the Walls of Vera Cruz.
Saturday, March 27, 1847

Terms of capitulation agreed upon by the commissioners, viz:—

Generals W. J. Worth, and G. J. Pillows, and Col. J. G. Totten, chief-engineer, on the part of Major General Scott, general-in-chief of the armies of the United States: and Col. Jose Gutierrez de Villanueva, Lieut. Colonel of the Engineers Manuel Robles, and Col. Pedra de Herrera, commissioners appointed by General of Brigade Don Jose Juan Landero, commander in chief Vera Cruz, the Castle of San Juan de Ulua and their dependencies—for the surrender to the arms of the United States of the said forts, with their armaments, munitions of war, garrisons and arms.

1. The whole garrison, or garrisons to be surrendered to the arms of the United States, as prisoners of war, the 29th inst, at 10 o'clock A.M.; the garrisons to be permitted to march out with all the honours of war, and to lay down their arms to such officer as may be appointed by the general in-chief of the United States armies, and at a point to be agreed upon by the commissioners.

2 Mexican officers shall preserve their arms and private effects, including horse and horse furniture, and to be allowed regular and irregular officers, and also to rank and file, five days to return to their respective homes, on parole, as hereinafter prescribed.

3. Coincident with the surrendering, as stipulated in article one, the Mexican flags, of the various forts and stations shall be struck, saluted by their own batteries; and, immediately thereafter, forts Santiago and Conception and the castle of San Juan de Ulua, occupied by the forces of the United States.

4. The rank and file of the regular portion of the prisoners to be disposed of, after surrender and parole, as their general-in-chief may desire, and the irregular to be permitted to return to their homes. The officers, in respect to all arms and descriptions of force, giving the usual parole, that the said rank and file as well as themselves, shall not serve again until duly exchanged.

5. All the *materiel* of war, and all public property of every description found in the city, the Castle of San Juan de Ulua and their dependencies, to belong to the United States; but the armament of the same (not injured or destroyed in the future prosecution of the actual war) may be considered as liable to be restored to Mexico by a definitive treaty of peace.

6. The sick and wounded Mexicans to be allowed to remain in the city, with such medical officers of the army as may be necessary to their care and treatment.

7 Absolute protection is solemnly guaranteed to persons in the city, and property, and it is clearly understood that no private building or property is to be taken or used by the forces of the United States, without previous arrangement with the owners, and for a fair equivalent.

8. Absolute freedom of religious worship and ceremonies is solemnly guaranteed.

(Signed in duplicate.)

W. J. WORTH, Brigadier General,
GEO. J. PILLOW, Brigadier General,
JOS. G. TOTTEN, Col. and Chief Eng'r.,
JOSE GUTIERREZ DE VILLANUEVA,
PEDRO MANUEL HERRERA,
MANUEL ROBLES.

It is difficult to ascertain correctly the numbers killed on either side. According to some accounts 500 Mexicans were killed, and according to others the numbers is 1000. The loss amongst the soldiery is said to be much less than amongst the women and children in the City. Some of the newspaper accounts state that one half of the City is destroyed,—6,700 shot and shell weighing 463,600 lbs, are said to have been thrown into the City.

—o—

MEETING OF PARLIAMENT.—Parliament will be summoned to meet for the despatch of business on the 4th of June next.

THE WHEAT CROP.—The *Brantford Courier* says:—It gave us pleasure, during a jaunt of a few miles into the country (this week,) to witness the advanced growth—at this early period—of the new wheat crop, which if the weather continues favorable, promises an abundant harvest.

Steps are being taken to form a Horticultural Society in Hamilton.

The Nova Scotia Legislature has passed a bill to incorporate a Nova Scotia Electric Telegraph Company.

A project has been started in New Brunswick for the purpose of making a marine railway across the Isthmus between Nova Scotia and New Brunswick.

The Hon. George Moffat has resigned the office of President of the Montreal Board of Trade.

The deposits in the Montreal Savings Bank have increased during the last five months nearly ten thousand pounds.

S. H Greer and Captain Colclough have entered the forwarding business at Kingston, in partnership.

Mr. Brady, the Whig Candidate for Mayor in New York, has been elected.

Kingston harbour is now clear of ice.

Several persons have died of wounds received in the late election riot, in Prince Edward Island.

£1.317 3s. 7d has been collected for the starving Irish and Scotch, in Halifax, Nova Scotia.

On Wednesday night the 7th instant, a large crucifix was stolen from the St. Patrick's Church Quebec. It appears to have been destroyed in another part of the city.

The Legislature of Nova Scotia was prorogued on the 31st March.

Burlington Bay has been clear of ice several days.

The New York Herald states that Mr. Packenham is about to leave the United States for England.

From the Globe.

Arrival of the Cambria.

(From the Albany Argus, April 21.)

[BY WAY OF NEW YORK.]

The *Cambria* arrived at Boston at half-past 6 o'clock, yesterday.

Grain markets receding in every description. In Indian corn for instance, is astounding. The price has receded 24s. from the highest point. Flour has sustained a considerable fall.

The existing depression can hardly fail to be occasioned by the fine spring weather which foreshadows an early and prolific harvest.

O Connell's health had improved, and he had gone to Rome. If he would avoid excitement, it was hoped he would recover.

The state of Ireland is improving, the accounts received of the result of the carrying into effect of the general order, for the dismissal of the fifth part of the labourers on the public works, show that destitution has been greatly exaggerated, and in some districts, scenes of disturbance have occurred, and the order had not been enforced. The New Relief Measure will soon be in operation in several of the counties where the Government is receiving local co-operation.

LONDON CORN MARKET.—Wheat and flour receded, 27th March, from 1s. to 2s. per quarter, and the latter 1s per brl. Indian Corn was pressed on the market at a reduced price from 22nd to the 29th. The downward tendency continued and further reduction took place in most of the articles offered for sale on the 29th Wheat fell from 3s. to 4s., and in some one or two instances 5s. per quarter. Flour unsettled. American saleable, on retail at 1s. to 2s. per barrel below rates current on that day. Hardly anything done in Indian Corn. A better feeling in the market, on the 31st, Wheat sold on fully as good terms as on the 29th. Foreign Wheat sold at full prices.

LIVERPOOL CORN MARKET, APRIL 3.—Large imports of Bread Stuffs has had the effect of putting down prices of all kinds of Grain and Flour. The fluctuation during the month amounts to 1s. per 70 lbs. on wheat, 6d. per 45 lbs. on oats, 6d. per 60 lbs. on barley, 4s. per quarter on rye, peas, and beans, 6s. per barrel and 8s. per sack on flour, 2s. per load on oatmeal, 24s. to 25s. per 480 lbs. on Indian corn, and 10s. per load on Indian corn meal. Within a few days a reaction has been experienced in peas of 2s. per quarter. In flour, of 2s. per sack and barrel. In Indian Corn 5s. per 480 lbs, and Indian Corn Meal 2s. per barrel; the trade has generally assumed more firmness. Barley 6s. 9d. to 7s. per 60 lbs. Beans Harrico white 70s. to 80s. Western Flour 37s. a 38s. Southern 1s. a 2s. lower. American Wheat rules from 10s. to 11s. 6d for 70 lbs. Indian Corn 52s. for 480 lbs.; Meal 25s. per brl.

Toronto Market Prices.

April 20.	s.	d.		s.	d.
Flour, per barrel, 196 lbs....	25	0	a	27	0
Oatmeal, per barrel, 196 lbs...	22	6	a	25	0
Wheat, per bushel, 60 lbs....	4	6	a	5	0
Rye, per bushel, 56 lbs.....	2	9	a	3	4
Barley, per bushel, 48 lbs....	2	4	a	2	8
Oats, per bushel, 34 lbs.....	1	6	a	1	8
Peas, per bushel, 60 lbs.....	2	9	a	3	9
Potatoes, per bushel.....	3	9	a	5	0
Onions, per bushel.....	0	0	a	0	0
Beef, per cwt.....	17	6	a	22	0
Beef, per lb.....	0	3½	a	0	4½
Pork, per 100 lbs.....	17	6	a	22	0
Hay, per ton.....	40	6	a	45	0
Straw, per ton.....	25	0	a	30	0
Timothy, per bushel, 60 lbs....	5	0	a	6	3
Mutton, per lb., by the qr....	0	3	a	0	4½
Veal, per lb, by the qr.....	0	0	a	0	0
Tub Butter, per lb.....	0	5	a	0	7
Fresh Butter, per lb.....	0	7½	a	0	10
Turkies, each.....	2	0	a	3	0
Geese, each.....	1	3	a	2	6
Ducks, per couple.....	1	6	a	2	0
Fowls, per couple.....	1	6	a	2	0
Chickens, per couple.....	1	3	a	1	10½
Eggs, per dozen.....	0	9	a	1	0
Bacon, per lb.....	0	3	a	0	5
Hams, per cwt.....	0	0	a	0	0
Lard, per lb.....	0	3½	a	0	5½

AGENTS FOR "THE CANADA FARMER."

The following persons have consented to act as Agents for the *Canada Farmer*. We allow to local Agents 20 per cent. for their trouble, which we hope will remunerate them, and induce them to make an effort to extend our circulation.

W. H. Smith, Dr. Smith, James Wetherald, } *Travelling Agents.*

Local Agents.

Windsor—Mr. James A. H. Gerrie, Bookseller.
Oshawa—Mr. Gavin Burns, Postmaster.
Buxmanville—Mr James McFeeters, Merchant
Newcastle—Mr. Myron Moses, Innkeeper.
Port Hope—Mr Alexander Fisher, Merchant.
Bloomfield—Dr. J. W. Howe.
Peterboro—Mr Robert Nichols, Merchant.
Cobourg—Mr. John Field, Merchant.
Grafton—Mr. John Taylor, Postmaster.
Colborne—Mr Albert Yerington, Postmaster
Brighton—Mr J. Lockwood, Postmaster.
River Trent—Mr. Alexander Cumming.
Belleville—Mr. A Menzies, Postmaster
Shannonville, Victoria District—Mr Hiram Holden, Postmaster.
Napanee, Midland District—Mr. E. A Dunham, Merchant.
Kingston—Messrs. Oliphant & Watt, Merchants
Grenville—J. Lewis Macdonald, Esq.
Brockville—Mr. Henry Jones, Postmaster.
Merrickville—Mr E. H. Whitmarsh, Postmaster
Kemptville—Mr. Wm. H. Bottum, Postmaster
Santa Cruz—Mr. Robinson Harper, Merchant.
Perth—Mr James Allan Postmaster.
Bytown—Captain Baker, Postmaster.
Burnham—Mr. David Reesor.
Vaughan—Mr. Thomas Noble, Merchant.
York—Mr. Daniel McMullen, Farmer.
Hallowell—Mr A Hurd, Postmaster
Cataraqui—Mr. P. Howland, Postmaster.
Lundy—Mr. B. Hagaman.
Guelph—John Smith, Esq.
Paleruo—H. M. Switzer.
Toronto and parts adjacent—J J Ball, Farmer.
St. George, C. D.—Samuel Stanton, Esq.
London—Thomas Craig Brockville.
Woodstock—H. C. Barwick, Esq.
Port Dover—James Riddell, Merchant
Ancaster (Jersey Settlement)—A. Hendershot, blacksmith
Barford—W. M. Whitehead, P. M.
Delaware—John Drake, P.M
Ingersol, Oxford—Darius Doty Esq.
Hillsmand—John Lovde, P.M.

Notice.

NOTICE is hereby given, that an Application will be made to the Legislature, at their next Sitting, for an Act to Incorporate a Company to construct a Plank Road from the Kingston Road, South of Gate's Tavern, through Scarboro, to Markham Village, and thence to Stouffville.

15th November, 1846. 2

CROWN LAND DEPARTMENT,

Montreal, 10th March, 1846.

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

THE
Canada Farmer,

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

TERMS:

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

Advertisements inserted on the usual terms.

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

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