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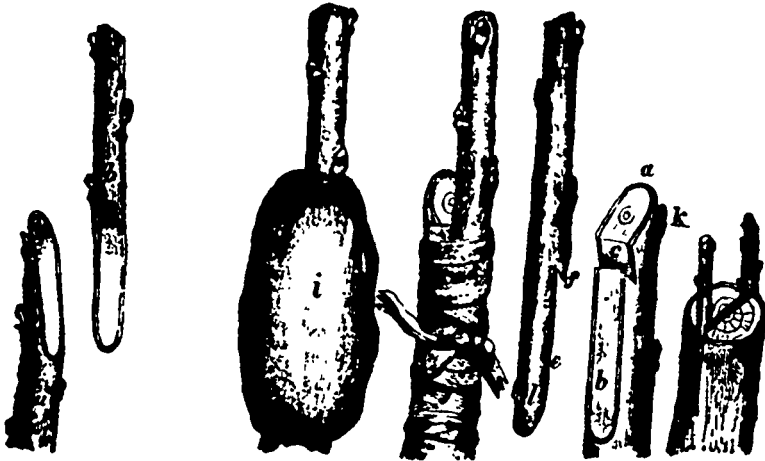


Fig. 2—Splice Grafting.

Fig. 4—Tongue Grafting.

Fig. 5.

FRUIT TREES—GRAFTING, &c.

In our last number we made some observations on the state of Canada, with reference to Fruit Culture, and expressed our opinion of its importance, and our intention to collect and publish such information upon the subject as the wants of the agricultural population require. As the Spring is near at hand, we are anxious to lay what we intend to publish before our readers in sufficient time to enable them to digest it, previously to the arrival of the period when operations should be commenced, and shall accordingly devote a considerable portion of our Agricultural space to that object. We feel satisfied that the value of the information contained in this number is equal to ten times the price of our paper, to every man who owns or expects to own an apple tree. We hope our subscribers will appreciate its value, and not only make an effort to extend the benefit to their neighbours, by inducing them to subscribe for the paper, but carefully preserve each number, so that at the end of the year the whole may be bound together, forming a book, than which a more useful, various, interesting, and instructive volume could not be purchased.

We have extracted below so much of Mr. Downing's work as explains the operations of Grafting, cutting scions, making grafting clay and wax, &c. &c.; and in our next number shall proceed to explain that of Budding, a mode of propagation in some respects preferable to Grafting, and within the last few years very extensively adopted:

PROPAGATION OF VARIETIES—GRAFTING—BUDDING—CUTTINGS—LAYERS AND SUCKERS.

After having obtained a new and choice kind of fruit, which in our hands is perhaps only a single tree, and which, as we have already shown, seldom produces the same from seed, the next inquiry is how to continue this variety in existence, and how to increase and extend it, so that other gardens and countries may possess it as well as ourselves. This leads us to the subject of the propagation of fruit trees, or the continuation of varieties by grafting and budding.

Grafting and budding are the means in most common use for propagating fruit trees. They are, in fact, nothing more than inserting upon one tree, the shoot or bud of another, in such a manner that the two may unite and form a new compound. No person having any interest in a garden should be unable to perform these operations, as they are capable of effecting transformations and improvements in all trees and shrubs, no less valuable, than they are beautiful and interesting.

Grafting is a very ancient invention, having been well known and practised by the Greeks and Romans.

The uses of grafting and budding, as applied to fruit trees, may be briefly stated as follows:—

1. The rapid increase or propagation of

valuable sorts of fruit not easily raised by seeds, or cuttings, as is the case with nearly all varieties.

2. To renew or alter the heads of trees, partially or fully grown, producing in two or three years, by heading-in and grafting, a new head, bearing the finest fruit, on a formerly worthless tree.

3. To render certain foreign and delicate sorts of fruit more hardy by grafting them on robust stocks of the same species native to the country, as the foreign grape on the native. And to produce fine fruit in climates or situations not naturally favorable by grafting on another species more hardy; as in a cool climate and damp strong soil, by working the Peach on the Plum.

4. To render dwarf certain kinds of fruit, by grafting them on suitable stocks of slower growth, as in the case of the Pear on the Quince, the Apple on the paradise stock, &c.

5. By grafting several kinds on the same tree, to be able to have a succession of fruit, from early to late, in a small garden.

6. To hasten the bearing of seedling varieties of fruit, or of such as are a long time in producing fruit, by grafting them on the branches of full grown, or mature bearing trees. Thus a seedling pear, which would not produce fruit on its own root in a dozen years, will generally begin to bear the third or fourth year, if grafted on the extremity of the bearing branches of a mature tree.

The proper time for grafting fruit trees is in the Spring, as soon as the sap is in motion, which commences earliest with the Cherry and Plum, and ends with the Pear and Apple. The precise time of course varies with the season and the climate, but is generally comprised from February to the middle of April. The grape vine, however, which suffers by bleeding, is not usually grafted until it is in leaf. The most favorable weather for grafting is a mild atmosphere with occasional showers.

The scions are generally selected previously; as it is found in nearly all kinds of grafting by scions, that success is more complete when the stock upon which they are placed is a little more advanced—the sap in a more active state than in the scion. To secure this, we usually cut the scions very early in the spring, during winter, or even in the autumn, burying their lower ends in the ground in a shaded place, or keeping them in fine soil in the cellar till wanted for use. In cutting scions, we choose straight thrifty shoots of the last year's growth, which may remain entire until we commence grafting, when they may be cut into scions of three or four buds each. In selecting scions from old trees it is always advisable to choose the most vigorous of the last year's shoot growing near the centre or top of the tree. Scions from sickly or unhealthy branches should be rejected, as they are apt to carry with them this feeble and sickly state. Scions taken from the lower bearing branches will produce fruit sooner, but they will not afford trees of so handsome a shape; or so vigorous a growth, as those taken from the thrifty upright shoots near the centre or top of the tree. Nurserymen generally take their scions from young grafted trees in the nursery-rows, these being usually in better condition than those taken from old trees not always in a healthy state.

The stock for grafting upon, is generally a tree which has been standing, at least for a year previously, on the spot where it is grafted, as success is much less certain on newly moved trees. In the case, however, of very small trees or stocks, which are grafted below the surface of the ground, as is frequently the practice with the Apple in American nurseries, the stocks are grafted in the house in winter, or early spring, put away carefully in a damp cellar, and planted out in the spring; but this method is only successful when the root is small, and when the top of the stock is taken off, and the whole root is devoted to supplying the graft with nourishment.

The theory of grafting is based on the power of union between the young tissues, or organizable matter of growing wood. When the parts are placed nicely in contact, the ascending sap of the stock passes into and sustains life in the scion; the buds of the latter, excited by this supply of sap and the warmth of the season, begin to elaborate and send down woody matter, which, passing through the newly granulated substance of the part in contact, unites the graft firmly with the stock. "If," says De Candolle, "the descending sap has only an incomplete analogy with the wants of the stock, the latter does not thrive, though the organic union may have taken place; and if the analogy between the albumen of stock and scion is wanting, the organic union does not operate; the scion cannot absorb the sap of the stock and the graft fails."

Grafting therefore is confined within certain limits. A scion from one tree will not, from the want of affinity, succeed on every other tree, but only upon those to which it is allied. We are, in short, only successful in budding or grafting where there is a close relationship and similarity of structure between the stock and the scion. This is the case with varieties of the same species, which take most freely, as the different sorts of Apple; next with the different species of a genus as the Apple and the Pear, which grow, but in which the union is less complete and permanent; and lastly with the genera of the same natural family, as the Cherry on the Plum—which die after a season or two. The ancients boasted of Vines and Apples grafted on Poplars and Elms; but repeated experiments, by the most skillful cultivators of modern times, have clearly proved that although we may, once in a thousand trials, succeed in effecting these ill assorted unions, yet the graft invariably dies after a few months growth.

The range in grafting or budding, for fruit trees in ordinary culture, is as the following: Apples, on apple or crab seedlings for orchards (standards,) or on Paradise apple stocks, for dwarfs; Pears, on pear seedlings for common culture, or Quince stocks, for dwarfs, and sometimes on the thorn for clayey soils; Peaches on their own seedlings for standards or for orchards; on Almonds for hot and dry climates; on Plumbs in cold or moist soils, or to secure them against the worm; Apricots, on Plum stocks, to render them hardy and productive, or on their own seedlings to render them long-lived. Nectarines are usually worked on the Peach or Plum; and Cherries on mazzard seedlings; or sometimes on the Perfumed Cherry for dwarfs.

The manual operation of grafting is performed in a very easy and complete manner when the size of the stock, or branch to be grafted, corresponds precisely with that of the scion. In this case, which is called splice grafting, it is only necessary with a smooth sloping cut, upwards on the stock a, and downwards on the scion b, Fig. 2, to make the two fit precisely, so that the inner bark of one corresponds exactly with that of the other, to bind them firmly together with a strand of matting, and to cover the wounds entirely with grafting clay or wax, and the whole is finished. In this, which is one of the neatest modes, the whole forms a complete union nearly at once; leaving scarcely any rounded part to heal over. But as it is only rarely that the stock is of so small a size as to fit thus perfectly to the scion, the operation must be varied somewhat, and requires more skill. The method in most common use to cover all difficulties, is called tongue grafting.

Tongue grafting, (or whip grafting,) Fig. 4, resembles very nearly splice-grafting, ex-

cept, instead of the simple splice, a tongue is made to hold the two together more firmly. In order to understand this method let us explain it a little in detail.

Having chosen your stock of the proper size, cut it off at the point where, a, it appears best to fix the graft. If the stock is quite small, it may be within three or four inches of the ground. Then, with a very sharp knife, make a smooth cut upwards b, about two inches in length. Next make a slit, from the top of this cut about one fourth of the way downwards, c, taking out a thin tongue of wood. Cut the scion four or five inches long, or so as to have three buds; then shape the lower end with a single smooth sloping cut, e, about the same length as that on the stock, and make the tongue upwards f, to fit in the downward slit of the stock. Now apply the scion accurately to the stock making the inner bark of the scion fit exactly the inner bark of the stock, at least on one side. Without changing their position, tie them together carefully with a piece of bass-matting, or tape h. And finally cover the wound with well prepared grafting-clay or wax, i. This ball of clay should more than cover the union, by an inch above and below, and should be about an inch thick. If grafting wax is used, the covering need not be above half an inch thick.

In a month's time, if the graft has taken, it will be expanding its leaves and sending out shoots. It will then be necessary to rub or cut off all shoots between the ball and the ground, if it is a small stock, or all those which would rob it of a principal share of nourishment, if upon a large tree. If the scion or stock is very weak, it is usual to leave one or two other buds for a time, to assist in drawing up the sap. About the middle of July, after a rainy day, you may remove the ball of clay, and, if the graft is securely united, also the bandage; and the angle left at the top of the stock, a, should now be cut off smoothly, in order to allow the bark of the stock and the scion to heal neatly over the whole wound.

Though it is little attended to in common practice, the amateur will be glad to know that the success of a graft is always greatly insured by choosing the parts so that a bud is left near the top of the stock, k, and another near the bottom of the scion, l. These buds attract the rising sap to the portions where they are placed, form woody matter, and greatly facilitate the union of the parts near them; the upper part of the stock, and the lower part of the scion, being the portions soonest liable to perish from a want of nourishment. [In grafting large quantities of young trees when stocks are scarce, it is not an unusual practice in some nurseries to tongue or whip-graft upon small pieces of roots of the proper sort of tree, planting the same in the earth as soon as grafted. Indeed, Dr. Van Mous considers this the most complete of all modes, with regard to the perfect condition of the grafted sort; 1st. because the smallest quantity of the stock is used; and 2nd. because the lower part of the scion being thus placed in the ground, after a time it throws out fibres from that portion, and so at last is actually growing on its own roots.]

Cleft grafting is a very easy though rather clumsy mode, and is in more common use than any other in the United States. It is chiefly practiced on large stocks, or trees the branches of which have been headed back, and are too large for tongue-grafting. The head of the stock is first cut over horizontally with the saw, and smoothed with a knife. A cleft about two inches deep is then made in the stock with a hammer and splitting knife. The scion is now prepared, by sloping its lower end in the form of a wedge about an inch and a half long, leaving it a little thicker on the outer edge. Opening the cleft with the splitting-knife, or a small chisel for that purpose, push the scion carefully down to its place, fitting its inner bark on one side to that of one side of the stock. When the stock is large, it is usual to insert two scions, Fig. 5. On withdrawing the chisel, the cleft closes firmly on the scions, when the graft is tied and clayed in the usual manner.

Apple stocks in many American nurseries, are grafted in great quantities in this mode—the stocks being previously taken out of the

ground, headed down very near the root, cleft grafted with a single scion, sloping off with an oblique cut in the side of the stock opposite that where the graft is placed, and then planted at once in the rows, so as to allow only a couple of buds of the scion to appear above ground. It is not usual with many other to tie or clay the grafts in this case, as the wound is placed below the surface, but when this plan is adopted, the grafts must be set and the trees planted at once, drawing the well pulverised soil with great care round the graft. Another way of grafting apple stocks, common in some western nurseries, consists in tongue-grafting on seedling stocks of very small size, cut back almost to the root. This is performed in winter, by the fire-side—the grafts carefully tied, and the roots placed in the cellar, in sand, till spring, when they are planted, the top of the graft just above ground.

Saddle grafting consists in cutting the top of the stock in the form of a wedge, splitting the scion and thinning away each half to a tongue shape, placing it astride the stock, and fitting the two, at least on one side, as in tongue-grafting. This mode offers the largest surface for the junction of the scion and stock, and the union is very perfect. Mr. Knight, who practised it chiefly upon Cherry trees, states that he has rarely ever seen a graft fail, even when the wood has been so succulent and immature as to preclude every hope of success by any other mode.

A variety of this mode, for stocks larger than the scions, is practiced with much success in England after the usual season is past, and when the bark of the stock separates readily. "The scion, which must be smaller than the stock, is split up between two or three inches from its lower end, so as to have one side stronger than the other. This strong side is then properly prepared and introduced between the bark and the wood; while the thinner division is fitted to the opposite side of the stock." The graft, thus placed, receives a large supply of the sustaining fluid from the stock, and the union is rapid; while the wound on the stock is speedily covered by a new layer of bark from that part of the scion which stands astride it.

Grafting clay is prepared by mixing one-third horse-dung, free from straw, and two-thirds clay, or clayey loam, with a little lime, like that used in plaster, to prevent its cracking. Beat and temper it for two or three days, until it is thoroughly incorporated. When used, it should be of such a consistency as to be easily put on and shaped with the hands.

Grafting wax of excellent quality we have made by melting together three parts of bees-wax, three parts of rosin, and two parts of tallow. While yet warm it may be worked with the aid of a little water, like shoemaker's wax, by the hand. The common grafting wax of the French gradeners is of two kinds. The first is melted and laid on with a brush in a fluid state, and is made of half a pound of pitch, half a pound of bees-wax, and a pound of cow-dung, boiled together. The second, which is spread while warm on strips of coarse cotton, or strong paper, and wrapped directly about the graft, answering at once to tie and to protect it, is composed of equal parts of bees-wax, turpentine, and resin. The grafting wax most commonly used here is made of tallow, bees-wax, and resin, in equal parts, or, as many prefer, with a little more tallow to render it pliable.

Grafting wax is a much neater and more perfect protection than grafting clay, but the trifling cost of the latter, where a great deal of work is to be done, accounts for its greater use by nurserymen, and gardeners generally.

From the Maine Farmer

RATIONAL REMEDY FOR CHOKED CATTLE.

Mr. Editor.—Having, in years past, before experience had taught me the better way, been a too frequent witness of the direful and truly painful results of the irrational and absurd, not to say inhuman and disgraceful means devised and employed for the expulsion, at all hazards, in double quick time, of whatever substance may have lodged in the throat of an animal, rather than with the view of affording relief, so far and as soon as it could be done, by the proper employment of rational means; and being aware that these means are too much in vogue with some, even at the present day, who are considered by many to be very skillful in such cases, and consequently their aid is frequently solicited; it was with no ordinary pleasure and gratification that I noticed the publication in the editorial department of the *Farmer*, of the 24th ult., of the most consistent and efficacious remedy of which I have any knowledge, in recent cases of choking, that is, when it is discovered that the animal is choked, before the throat becomes so swollen, and the muscles consequently so contracted as to hold it with a tyrant's grasp; and adopting the emi-

nent motto, "seek knowledge, and diffuse knowledge." I improve the present opportunity to bear testimony to the value and importance of the knowledge of this remedy to every owner of live stock; and to inform those of your readers, if any there are who may not be in possession of the facts, that in extreme cases, when the substance cannot be started from a snug quarters so readily as desired, by the employment of the judicious means which you mentioned, with others which the better judgment of the operator will suggest, after the oil or soap suds has been poured down the throat, which is sometimes the case, as I have had occasion of knowing, the much desired object may be, or has been speedily accomplished by introducing a quantity of snuff, or finely-powdered bay-berry into the nostrils, which may be done without the least trouble by means of a goose quill or a pair of bellows. This will produce a sneezing cough, which being caused by a spasmodic action of the muscles of the throat, is pretty sure to be attended with the rapid removal or ejection of the obstruction from the mouth.

I was informed sometime since by a lady, the wife of a distinguished Physician, that she once succeeded by this means, in saving the life of a valuable, and their only cow, after the Doctor and his advisers had exhausted their skill, and left her with the belief that no human aid or means could save her.

AMICUS.

Monmouth, February 4th, 1846.

CANADA FARMER.

March 12, 1847.

MAPLE SUGAR.

As the season for making Sugar is at hand, it may not be amiss to offer a few hints on the subject to those who, though they may know well enough how to make Sugar, do not know how to make good Sugar. With regard to the importance of this product to the public and to individuals we need say but little. The value of the sugar imported from abroad, and entered at the Port of Toronto alone, is set down at £21,687, for one year. There is but one other article of consumption for which we pay so large an amount yearly, and that is tea; which cost us, for what we imported into this City last year £40,000! This last heavy draw upon our purses we see no way of avoiding: we have not yet found anything that we can produce which will answer as a substitute. But for the "sweet thing" we certainly "come it too strong." If the actual value or cost of the sugar annually imported into the Province could be ascertained, it would show a pretty large figure. And we must recollect, when considering the matter in a public or national point of view, that we pay the hard cash for this luxury. There is no reciprocity in the business. The amount of wheat or flour which we send to the Southern States, to Havana, or to any of the West India Islands, is, we suspect, rather small. We cannot therefore discover either the point or the meaning of the following passage in the February number of the *Cultivator* :—

"If there were no more [wheat] grown in the country than what was annually consumed by the population, the import merchants would lose an important item of export to place to their credit in the markets from whence they draw their supplies of sugar, &c."

From the following statement, if we understand it properly, we must dissent entirely :—

"As important as is the export of wheat from Canada, still that portion of this article that is really the growth of Canada would fall short, in a series of ten or fifteen years, of supplying the country with sugar."

We suppose the proposition to be substantially this; the wheat and flour which we export, during a period of ten years, will not pay for the sugar which we import during that period. Let us look at a few figures. By the Custom House returns, for the year ending 5th January, 1847, it appears that there have been shipped from the Port of this City 194,856 barrels of flour, and 108,116 bushels of wheat in one year. Estimating the former at \$4 per barrel, and the

latter at \$1 per bushel (which is near enough the truth for our calculation), we have £221,885 as the value, at this port, of the wheat and flour shipped from it during one year. Now, so far as we are able to judge, we should say that the space of country from which wheat and flour is sent to this place is about of the same extent as that to which supplies of sugar, &c., are sent from it. The relative proportions between the two articles at Toronto will, therefore, afford a proper comparison for the Province. And what do we find. Why, that the value of the sugars imported during the same period, and at the same port from which the above £221,885 worth of wheat and flour was exported, is set down at £21,687 17s. 11d., leaving us a balance of over £200,000 for our wheat, &c., after we have paid for the sugar! But it may be that the Editor means to speak of the profit only which we derive, after deducting the cost of production. Let us suppose, then, that it costs one-half for seed, labour, interest on the value of land, barrels, &c. &c., and \$2 a barrel, and half a dollar a bushel, is the profit which the farmer may safely put into his pocket, and call his own. We still have £110,942, out of which to pay the £21,667 for sugar.

Though we must, for these obvious reasons, differ from our cotemporary in his wholesale conclusions, drawn from premises so unsound, or rather from no premises at all, yet we agree with him in the opinion, that sugar may be made from the maple, sugar-beet, and corn-stalks, in sufficient quantity to supply our home consumption. That it is good policy to produce at home as many of the articles of home consumption as we can, provided that we do not spend more time and incur more expense than if applied to some other object, would enable us to purchase from others, will not, we think, be denied. But if a farmer who has five hundred or a thousand maple trees is obliged to pay his hired labourers \$10 per month each, and board them besides, and if his fences should require his attention, or any part of his farm be in need of repair and improvement, which must be neglected on account of operations in the sugar-bush, then we say it becomes a question whether it would not be the wisest policy to let his trees alone, and buy his sugar; otherwise it might turn out that he had "paid too dear for his whistle." It so happens, however, that the time for making sugar from the maple occurs just at that season of the year when the farmer who keeps everything in proper order about him has little else to do: he may therefore engage in this business with profit to himself and advantage to the country. The production of sugar from the beet and from corn-stalks must, we apprehend, be entered into as a business of itself, and not as a part of every farmer's work. It would be well if Government were to appropriate a sufficient amount, to be expended through the Provincial Agricultural Association, for the purpose of fully testing the feasibility of making sugar on a large scale from the products of Canadian soil. Encouragement held out even by the local Societies might lead to important results. The amount of money annually sent out of the country for sugar, though not so great as some would have us believe, had much better be retained.

With regard to the manufacture of maple sugar, which is carried on to some extent by nearly all who have the trees, it is apparent to every one who knows anything of the matter, that it is capable of considerable extension and great improvement. Such speculations as the following, however, are beyond our depth, and we shall therefore religiously abstain from them:—"With proper management, ten millions of maple trees might be tapped annually for fifty years to come in Western Canada, which, at an average of two and a half pounds per tree, would give a return of twenty-five millions of pounds weight of sugar, which, at the rate of £2 per 100 lbs., would be worth a half of mil-

lion of pounds currency." Whether we "might" tap ten millions or twenty millions, for one year or fifty years, is, we venture to say, a question of no importance: it is absurd to raise it, because we have no data by which we can settle it. The practical view of the subject is this: should not every farmer who has a sugar-bush endeavour to preserve it, and adopt the best means to make it productive. If he does this, will he not make sugar enough for his own use, and, if his bush be a good one, will he not have some to spare? Then, passing from the individual to the public, could we not manufacture sugar enough from other substances, the growth of our own soil, to supply the deficiency? If we can manufacture enough for this purpose, can we do it cheaper than we can import it? These, it appears to us, are the questions to settle, and which may be settled.

When we began this article, we intended merely to give a few practical directions for making maple sugar, but, taking up the remarks of our brother of the *Cultivator*, upon the same subject, we were led on a little further. We now return to that part of the subject. The art of making good sugar consists in freeing it from all impurities. It is asserted, that with the same care the juice of the maple will make as good sugar, and as white, as the juice of the cane. One-third may be added to the market value of maple sugar by the simple process we are about to detail, and which will cost but a trifle to adopt. It is the same process by which Havana sugars, and, indeed, by which, or by a modification of which, all sugars of a good quality are made. We take it from Chaptal, a French writer of distinction, who manufactured sugar from the beet. He thus describes the process he successfully pursued :—

We will first give the process of purifying the juice and the syrup. The juice (of the beet) is first heated to a temperature of one hundred and eighty degrees—thirty-two degrees below the boiling point, when some milk of lime, prepared by throwing some warm water upon lime, is thrown in, and the liquor well stirred. As soon as the first bubble makes its appearance, the fire is extinguished, and the liquor left at rest. A scum rises, thickens, dries, and hardens. The liquor becomes clear. The lime unites with the mucilage, and settles to the bottom. The scum is removed, and the clear liquor drawn off. The process requires an hour, and sometimes much more. The syrup is afterwards refined by animal charcoal [bones charred, or burned by heat: it may be made by placing bones in an open iron vessel, and heating until they are sufficiently black. Probably the whites of eggs, or milk, would answer the purpose, in purifying maple syrup.—Ed. C. F.] and the whites of eggs, and filtered through a coarse, thick, rough cloth. Moulds of tin or other material are prepared, of any size, of a conical shape, like the form of a sugar-loaf, with a stopper in the small or lower end. When sufficiently reduced (which is not so much as is usually done in the common way of "sugaring off."—Ed. C. F.), the syrup is turned into them; as soon as granulation has begun on the surface and sides, the crust is broken with a spatula [a thin, knife-like instrument; but a small piece of wood, like a pushing-stick, will of course do as well.—Ed. C. F.], and the whole stirred well; after which it is let alone. After this, the process of whitening or clarifying is thus managed:—The clay is first thoroughly washed, till it acquires such a degree of consistency as not to flow when placed upon a smooth and slightly-inclined board. It is then thrown upon the sugar in the moulds. The moisture penetrates the loaves, deprives the sugar of its colour, and passes out at the point of the mould, which should now be unstopped. The lay, deprived of its water, shrinks and dries, and is removed. A second, and sometimes a third application of clay is made, before the sugar attains the desired whiteness.

WASH FOR FRUIT TREES.

We have seen, that in several parts of the country the practice of whitewashing trees has been adopted, and we have often, in our own minds, questioned its propriety. If there be such a thing as "insensible perspiration" in the body of a tree, as there is in the human body, anything that obstructs it

must be attended with bad consequences in the vegetable, as well as in the animal. One thing is pretty clear, nature never intended that the tree should be enveloped in such a coating, and the less we deviate from her provisions and intentions the greater will be our success. If we can destroy the insects and remove the moss, without leaving something in their place nearly, if not quite as injurious, it will be wise to do so. We take the following from the *Maine Farmer*:

The practice of washing, or rather we should say coating trees with whitewash, so prevalent some five years since in most sections of this State, appears now but to have few supporters. Instead of lime wash, most cultivators of fruit use a wash made of common wood ashes or of potash, which they apply in rather a dilute state, with cloths instead of brushes, and which has a tendency to remove moss, give a lively and healthy appearance and character to the cuticle, and to destroy the small animalcule that adheres to the outside covering of leaves in May and June. Whitewash, as it has a tendency to obstruct and fill the pores of the bark, is an application rarely attended with benefit; it may remove moss and expel insects, but the bad consequences inseparable from its mechanical action on the system, far more than counterbalance all the good effects it is likely to produce. A tree that has become coated with moss can in no way be more speedily and effectually renovated than by a careful removal of the adhering fungus, and the application of soap-suds. Trimming at the proper season, and judicious manuring in conjunction with the above appliance, rarely fail in effecting the result desired.

THE CANADIAN AGRICULTURAL SOCIETY AND AGRICULTURAL COLLEGE.

By yesterday's mail, we received intelligence apprising us of the foundation of a great General Agricultural Society for Canada East, somewhat similar in its composition to that recently established in this section of the Province, under the name of the Provincial Agricultural Association. The formation of the Society for Canada East was determined on at a meeting held at Montreal, on the 3rd instant. The name chosen is that of "The Canadian Agricultural Society." This Society is to interfere in no way with the Country Societies, but is intended to act as an auxiliary in the great work of Agricultural improvement. Those members who subscribe by the year are to pay the trifling sum of five shillings annually, and persons who subscribe two pounds ten shillings, or upwards, will be constituted members for life. The Society is to be governed by a President, six Vice-Presidents, twenty-four Directors, and a Secretary and Treasurer; and in order to afford the District of Quebec an opportunity of co-operating with the Society, they will be entitled to appoint six of the Directors, and, next year, two of the Vice-Presidents. The Society is to meet annually, in the month of March, for the election of Officers and Directors, and to take into consideration such other matters as may be submitted to them; and, if necessary, a general meeting may at any time be called on the requisition of the President and a majority of the Vice-Presidents, made to the Secretary. The Directors are to hold quarterly meetings, and oftener, if necessary; and at all meetings of the Society the President, or one of the Vice-Presidents, to preside. At the Quarterly Meetings the presence of the President or one of the Vice-Presidents, and one-fourth of the Board of Directors, will be required to form a quorum, for the transaction of business. The objects of the Society will be directed to the diffusion of useful knowledge connected with Agriculture, to encourage the cultivation of new plants, and to promote general improvement in the system of farming. Draining, manuring, cropping, the raising of stock, the management of the dairy, and every other branch of rural economy will be included. An endeavour will be made to procure the establishment of an Agricultural College, similar to that established at Cirencester, in England, for the instruction of youth in the science and art of

Agriculture, and the expense to be paid from the products of a model farm, which is to be attached to the College. There is also to be an Agricultural Museum, and one or more Agricultural Libraries. Clergymen, of all denominations, will be requested to become honorary members, to aid in the collection and circulation of statistical and other useful information relating to Agriculture. The Municipal Councillors and School Commissioners will also be invited to use their endeavours to promote the interests of the Society. The Society is to go into immediate operation, before the meeting of Parliament. Mr. Evans, who has so long used his best endeavours to promote the interests of Agriculture in Lower Canada, is taking an active part in the establishment of the Canadian Agricultural Society.

We are somewhat agreeably surprised at the bold step taken by the Agriculturists of Lower Canada, who have long been reproached for their adherence to a wretched and exhausting system of cultivation. Now they really threaten to go ahead of Canada West; to outstrip us in the race of improved and enlarged productions, and to pluck the laurel from our brow, while with a hearty huzza they proclaim the peaceful conquest. Not enviously should we look upon their exertions. Now that emulation has been excited, there is some hope that vigour of mind will be brought to bear upon our system of Agriculture; that reason will no longer think it beneath her dignity, to investigate the productions of nature; to examine the causes of the failure of the crops, and to seek out suitable remedies. Of the good effects that may flow from the establishment of the Agricultural College, we are certainly sanguine. There the Canadian Youth may acquire that knowledge which will enable him to investigate and trace the causes of the difficulties with which as a practical farmer he will have to contend. He will then be enabled to pursue his avocation upon principles purely scientific—to trace the effect up to the cause. True, all cannot directly enjoy the advantages which the Agricultural College will afford; but the knowledge acquired by those who will attend, will be sent abroad and become common property, by which means all, more or less, reap the advantage.

But Upper Canada should not allow herself to be left behind by Lower Canada. The whole arrangement connected with the College, if we are to have one, should be judiciously made; and the model farm should be under the management of persons of extensive scientific acquirements; for if controuled by persons of ordinary intelligence, no good result would be obtained by its establishment.

BLIND STAGGERS.

The above is the popular name for a disease, often serious in its consequences, to which horses are sometimes subject. We take the following remarks upon it from a "Manual of Veterinary Medicine," by M. Lebeaud, a French writer of considerable merit. His work is published in *L'Encyclopedia des Sciences et des Arts*, and is now being translated into English, for the *Maine Farmer*. We shall occasionally borrow from the translation of our Contemporary such passages as appear valuable:—

DIZZINESS.

A sort of delirium, sometimes quiet, sometimes furious, caused by an inflammatory state of the brain. There are two species of this disease—the one symptomatic of some other complaint, and the other primary. In the latter there is direct injury of the brain, either by a collection of blood or serum fluid within the skull—by inflammation of the membranes or by enlargement of the vessels of the brain itself, caused by the heat of the sun or some local injury; in the symptomatic affection, the brain is disturbed by fever, or obstruction of the bowels, or some other general disease. The horse, attacked by this disease, is dull and heavy; hangs his head to the ground; he leans against whatever is near him, as if to keep from falling; hangs back, and drags upon his halter, and keeps constantly in motion; his eyes roll in his head; he staggers in his walk; his legs

tremble; he throws himself violently on the ground, and in his struggles often bruises his head badly.

Such a case requires prompt treatment; particularly large bleedings, and cooling drinks and lavements. If the stomach be overloaded with indigestible food, the first thing to be done will be to give cathartics and lavements enough to empty them thoroughly. After these preliminaries, a large rowel should be inserted in the breast. The horse should be tied in such a way that he cannot hurt himself in his struggles: for this purpose small bundles of straw should be fastened to the different parts of the stall against which he might be bruised or otherwise injured.

CULTIVATION OF WHEAT.

The Editor of the *Albany Cultivator*, writing on the defects of the present mode of wheat culture observes, that in the oldest districts of the United States, where cultivation was commenced a little more than 200 years ago, the soil is exhausted, and the culture of wheat has had to be abandoned. His remarks on the subject, cannot, at this season, fail to be interesting to the farmers of this country:—

A writer in the *Farmer's Magazine* observes, "though wheat thrives in a stiff soil, it may be too hard; though it will grow in a loose sand, it is easily thrown out; though it thrives in a hot summer, it may be burnt up for want of moisture; and though wet is injurious to it, it requires, at certain seasons, considerable moisture. It requires a medium soil, condition and climate. If the soil be too poor, it is short and sickly; if it be too rich, it lodges or mildews; and no plant requires the watchful eye of the cultivator more carefully or more assiduously."

It was formerly thought that wheat could only be grown on strong retentive soils, but it is now successfully cultivated on nearly all light soils as well as strong. In speaking of England, he says the "four-course," or alternating system of farming, "established the fact, that while the clover root was a better bed for wheat than a fallow, the sheep's treadings and droppings were a much better dressing than lime or barn-yard manure; and blowing sand could, in 8, or even 4 years, be adapted to the raising of as much wheat as the naked, open, laborious fallow, that on the former there was a stock of sheep to sell, and no labor beyond the ploughing and sowing."

In this country, no better preparation can be had for a wheat crop, than a clover-ley depastured by sheep. The action of clover on sandy soils, is to render them more compact.

He cites the analysis of Sprengel, by which it appears that the principal ingredient in wheat of a fixed character, is phosphorus, and observes—"when it is known how much of that material is drained from the soil, year after year, and sold off the farm, it is not surprising that we hear farmers complain of 'spent soil!'"

The most suitable manure for wheat, he believes to be bones, and the dropping of sheep while feeding on the land; and where this course has been adopted, he says good farmers in all parts of the kingdom came to the conclusion that no soil is too light to grow thriving crops of wheat, if it only be properly tilled. "In the bones, the necessary phosphorus is supplied, and the urine and dung of the sheep supply the other constituents necessary for perfecting the plant in straw or grain. Many examples might be given of the successful application of bone manure to wheat."

Bones are prepared for use as manure, either by being crushed in mills, designed for the purpose, or by being dissolved in sulphuric acid. The latter method is generally adopted in England. The bones are placed in a conical heap on a bed of ashes, and the acid slowly poured on. Twelve lbs. of acid per bushel, is the quantity applied; being diluted with once or twice its bulk of water. The bones will absorb nearly the whole of the acid; the outside of the heap should then be turned inside, and the whole will, in a short time, become soft and fit to mix with ashes for drilling or sowing.

They are sometimes applied in a liquid state, and are also used alone as a top dressing. The quantity applied per acre is from 16 to 25 bushels.

The writer has no confidence in "dibbling and thin sowing."

He speaks in favour of drilling, of which he thus speaks:—

"The drill is the sheet-anchor of wheat sowing. The seed is deposited with the accuracy of clock-work; the quantity can be regulated to a fraction—a peck per acre; the rows are straight, and parallel; the depth can be adjusted to a trifle; and the whole apparatus be adapted to the varied circumstances

of the case with the loosening of a screw, or the turning of a handle." These drills are so perfect, that in sowing "a 20 acre field, with smooth surface, scarcely a variation of an inch from a straight line occurs in the whole piece."

As a protection against smut and vermin, the writer recommends arsenic. We have formerly used this substance as a preventive of smut, but cannot say that we found it more effective than blue vitrol or sulphate of copper: either will answer the purpose well, if properly used. But for protecting the seed against insects and vermin, we think it probable the arsenic would be preferable.

"Take to every bushel of grain one oz. of arsenic, dissolve it in a pint of water, adding half a lb. of salt. Spread the corn on a level floor, and pour the liquor on, stirring it until the whole is thoroughly damped. Then mix quicklime until it is sufficiently dry to sow, and we will guarantee that not an ear of smut will be visible. The seed is also secure from crows and vermin."

The average yield of wheat per acre, on a clover-ley, under good management, is put down at 30 bushels: and the expense of cultivation as follows:—

| | £ | s. | d. |
|--------------------------------------------------------|---|----|----|
| Plowing..... | 0 | 6 | 0 |
| Sowing..... | 0 | 3 | 0 |
| Harrowing..... | 0 | 1 | 0 |
| Rolling..... | 0 | 1 | 6 |
| Weeding..... | 0 | 4 | 0 |
| Straw for harvesting and all expenses up to marketing. | | | |

£1 13 6

This would give the cost per bushel about 26 cents. The common opinion is, that wheat is produced much cheaper in this country than it can be in England. This is questionable. Their improved modes of culture, and the greater average yield, the English farmers may have the advantage of the American on the score of cheapness; and we ought to regard this as an additional inducement for the adoption of a better system.

SPEEDY CURE FOR A FOUNDERED HORSE.

As soon as you find your horse is foundered bleed him in the neck in proportion to the greatness of the founder. In extreme cases you may bleed him so long as he can stand up. Then draw his head up as is common in drenching, and with a spoon put fur back on his tongue strong salt, until you get him to swallow one pint. Be careful not to let him drink too much. Then anoint round the edges of his hoofs with spirits of turpentine, and your horse will be well in one hour.

A founder pervades every part of the system of a horse. The phlegm arrests it from the blood, the salt arrests it from his stomach and bowels; and the spirit of turpentine arrests it from the feet and limbs.

I once rode a hired horse 99 miles in two days, returning him at night the second day; and his owner would not have known that he had been foundered if I had not told him, and his founder was one of the deepest kind.

I once, in a travel of 700 miles, foundered my horse three times, and I do not think my journey was retarded more than one day by the misfortune, having in all cases observed and practiced the above prescription. I have known a foundered horse turned in at night on green feed; in the morning he would be well, having been purged by the green feed. All founders must be attended to immediately. [S. W. Farmer.]

USEFUL RECIPES.

To MAKE "KING OIL."—Take 1 oz. green copperas, 2 oz. white vitrol, 2 oz. common salt, 2 oz. linseed oil, 8 oz. molasses, and 1 pint urine. Boil for fifteen minutes over a slow fire, and when nearly cold, add 1 oz. oil vitriol and 4 oz. spirit-turpentine—apply with a feather. This application I have tried on several severe wounds on horses, in very cold weather, with the best results. If applied early, it will keep out all cold, and cause the wound to suppurate and heal soon. (It need not be bandaged.)

LIQUID OROPHAC. For bruises and sprains on horses, and for pains and rheumatism on myself. Take 1 quart of whiskey, and dissolve in it 6 oz. casile soap, heating it over a slow fire till it is completely incorporated; then let it cool, and add 1 oz. of camphor.

I found the foregoing recipe in an agricultural paper some years ago, and having tried them effectually, can recommend them to others. If inserted in thy paper, I think some of thy subscribers may be led to say, as I have done, "this recipe has been worth more to me than the whole cost of the paper for a year." R. H. G.

Green Hill, Col. Co., O.—[Ohio Cultivator.]

INJURIOUS ACTION OF WATER UPON LEAD.—On Monday last Joseph Gower, of Shirley, was admitted to that excellent institution, the South Hants Infirmary, being lately disabled, having lost the use of both hands, owing to the water he had been in the habit of using being impregnated with lead.—[Hants Independent.]

Civil and Social Department.

USURY LAWS.

The present state of the law in regard to usury, is beginning to attract the attention of the public. We observe articles on the subject in quite a number of the Provincial papers and it is somewhat remarkable that they all express the same opinion as to the necessity for some amendment. The following observations were prepared some time since by one of the Editors of this journal, at the request of the proprietor of a new paper published in this City, in which, as he stated, it was his intention to discuss such questions. He highly approved of the way we handled the question, but after having the article put in type, intending it to appear as editorial, he changed his mind, and concluded not to insert it "because he found there was such a diversity of opinion on the subject, and he was afraid to meddle with these questions." We are not disposed to follow such an example, nor to act upon such principles in the conduct of our paper. If we are to avoid all questions upon which there is a diversity of opinion, we may indeed close up our columns. These are the questions above all others, which it is the duty of an independent journalist to discuss, and to illustrate with his facts and arguments. If he conducts the discussion with fairness and judgment, and with a desire to arrive at the truth, none but incorrigible bigots will complain, because his opinions differ from theirs.

As this subject is now to some extent before the public, and as it is expected to engage the attention of Parliament at its next sitting, for we perceive that a petition has been drawn up by Mr. Sherwood to be presented to the Legislature, it will be well to consider the matter in all its bearings, and make up our minds upon it at once. There are several reasons why so important a question should be promptly and thoroughly discussed: if the law as it stands is just and beneficial, we should strive to prevent its alteration; if otherwise, we should bring all the influence we lawfully can, to bear upon our Legislators, in order to effect the desired amendments; and further, the question should be well canvassed previously to the action of the Legislature, for the purpose of acquainting the public with the amendments which the nature of the case really requires, and that they may watch the progress of any Bill that may be brought in while it is passing into law. An attempt will be very apt to be made in a House composed of such materials as the present, where lawyers, merchants, speculators and Bank officials, are "thick as black-berries" to smuggle into such a measure, some clauses, which will not be *pro bono publico* (for the good of the public), but *pro bono corporato*. Let all hands keep a sharp look out, and the danger may be avoided. The following is a part of the article we refer to, and which, as we took some pains to prepare it, we are unwilling should be lost.

We shall leave to the party-political, weekly, and semi-weekly publications the exclusive discussion of those topics of temporary, local, and mere party interest, which do not come within the scope and object of our undertaking; on the other hand, we shall, without hesitation and without compromise, march boldly to the attack of existing institutions whenever we consider them so defective as to oppose a serious obstacle to the solid improvement and prosperity of our native country. We shall endeavour to divest ourselves of all prejudice and all sectional feeling in the accomplishment of this important work. Neither change nor innovation will be sought or recommended for its own sake merely; but when change or innovation is necessary to get rid of deep-seated evils, or to introduce substantial improvements, we shall not be deterred by the clamour of those who are ever ready to apologise for what they cannot but acknowledge to be wrong, because change is to be dreaded; nor to oppose any improvement, however solid in its nature, because innovation is dangerous.

With these views we undertake the discussion of the propriety, nay the imperative necessity of a speedy change—a complete recasting of our Laws on the subject of Usury. It is somewhat remarkable, that in this age of improvement, when the schoolmaster is emphatically said "to be abroad,"—when, as Guizot, in his History of Civilization in Europe, remarks, "the burst of the human mind—the spirit of free inquiry" is the "paramount feature of the last century," that the absurd, impolitic, and, in the eye of the political economist, most pernicious laws against usury should

be allowed to encumber the code, or statute-book of any enlightened people. Monopoly has been the great curse—the eternal, smothering mephitic that has blighted and weighed down that spirit of individualism which is the leading and peculiar principle of modern times—a principle that has advanced civilization to its highest excellence, notwithstanding the many elements of opposition it has had to overcome. We speak of monopoly in its largest sense, or, rather, we speak of that essential principle of evil which runs through all monopolies, namely, a restriction upon the freedom of individual action. Monopolies, in the popular sense of the word, have received the universal execration of unprejudiced and disinterested men in every country. Why? because the exhibition of this principle was so plain that all could see it, and its operation so unjust that all felt it. In such cases, it was so palpable a contradiction of one of the first maxims of political economy, namely, "that every man be allowed to gain all that he can" (provided, of course, that he do not violate the just rights of his neighbours), that no reasoning was required to convince the mind of its absurdity. Monopolies of this kind, where they already exist, are submitted to as acknowledged evils, whose fate is doomed. The granting of new charters with exclusive privileges, and the renewal of old ones, are only obtained through the corruption of Ministers, and the bribery of the people's Representatives. But the same evil has been traced where its effects have been quite as disastrous to the prosperity of the people, though more difficult to expose. Those laws which are made for the protection of a nation are now found to have precisely an opposite effect: a protective law is discovered to be a monopoly law, open to the very same objection, both as it respects the nation and the individual. It separates the community into two classes, one of which is privileged and the other oppressed. If possible, the evil principle we have mentioned flourishes under this form, with more rank exuberance than in the simple monopoly; for if a protective law has any life or operation at all, just so far as it benefits the one class it will injure the other. If the manufacturers of shoes are protected by a duty of two shillings a pair, the wearers of shoes must pay the two shillings a pair more than they would be obliged to pay if there were no protection. And it will be found, in almost every case, that the class injured are as ten to one of the class protected, to say nothing of the inevitable detriment which all such artificial restraints impose upon commerce. In the case of simple monopoly, it may often happen that the privileged few, while heaping up riches for themselves, are also developing new sources of national wealth, which might otherwise have been neglected. The evil, in such cases, is not unmitigated; there are some redeeming circumstances.

FREE TRADE doctrines have achieved a wonderful victory within the last year. Statesmen of powerful intellect and vast intelligence, in the face of much obloquy and in spite of personal interest, have openly admitted not only that the principles upon which Free Trade is based are sound, but that the practical application of them to the affairs of Commerce is salutary, safe, and expedient. Class legislation is every day becoming more and more unpopular. Even Legislators themselves are growing ashamed of it. But it is not a little strange, that many of those who have been most forward to combat this pernicious principle in the more palpable forms of its development, either deny its existence or stand forth in its defence, in cases where it is infinitely more destructive of the interests of society, morally and politically. They declare an eternal exterminating war against monopolies,—they condemn the principles and deny the policy of protective laws, but from prejudice or interest, or ignorance or something else, they will uphold and defend the laws against usury, which are built upon the same vicious principle, and in their working produce even worse results. We contend that these laws interfere with the freedom of action in the conduct of business, that they step in between parties in their contracts, and lay an interdict upon their proceedings against the will of both, without any justifiable reason. They abridge that natural liberty which every man has a right to enjoy, and of which it is tyranny to deprive him, unless the public good demands it. "That system of laws," says Blackstone, "is alone calculated to maintain civil liberty which leaves the subject entire master of his own conduct except in those points wherein the public good requires some direction or restraint." All attempts to impose restraints upon individual liberty in commercial dealings, are false in principle, and as all experience proves, have an effect the very opposite to that intended, unless they

proceed upon the ground of the public good. In this the object and operation of the Usury Laws! It is not pretended to be, except in the remotest sense. They are made to protect the borrower, not against the oppression of any general or public grievance which, without such protection, he would be unable to avoid, but against the consequences of his own voluntary and deliberate acts. The plea which we constantly hear in the mouths of the defenders of these laws is, that the lender of money should be prevented from taking advantage of the distressed borrower. The borrowers of money are a very small class in comparison with the whole community, and if a law which is made for their protection is found to impede the operations of commerce, prevent the introduction of capital from abroad, obstruct individual accumulation of their fortunes, give rise to great and disastrous fluctuations in the price of money, violate the rights of property, lessen the general reverence of law, necessarily lead to practices of a demoralizing kind, and, what is more to be considered in the present view of the matter, increase the difficulties of the distressed borrower, in fact, bring upon him the very evil it was intended to prevent; where shall we look for this public good which it was to accomplish, and which was to be its justification? And, further, if from the manner in which the law is framed, and the nature of its subject matter, it may be, and is every day evaded, in a hundred different ways, what shall we think of the wisdom of the statesman who conceived it, the Legislature that passed it, and the Legislature that refuses to repeal it?

To be continued.

POST OFFICE.

Of all the "grievances" which affect the people of this Province, the present Postal regulations and arrangements are the most annoying, and perhaps the greatest hindrance to improvement. If it was the object of Government to keep the people in a state of ignorance and discontent, it could hardly have adopted better means to accomplish that object, than the establishment and continuance of the present Post Office system. It has been stated in the Montreal papers that Lord Elgin is charged among other duties, with that of re-modelling the Post Office. We sincerely hope that such may be the fact, and that while he is about it, he will perform his task so thoroughly as to leave us nothing to complain of, or desire. Several persons have made the following remark—"we would like to take your paper, but it is no use to subscribe for it, as it is mere chance if we get it. There is no Post office within ten miles of us, and we despair of ever getting one." What use is there of talking about "competing with the western States," and improving our agriculture in every possible way, by spreading far and wide among our farmers, the discoveries of science, and the teachings of experience, if we virtually dam up the channels of communication, and stanch the fountains of knowledge? Vain indeed will be the hope of seeing improved systems of cultivation, and the intelligence and prosperity consequent upon their adoption, pervading our, in most other respects, favoured country, while this state of things continues.

We will mention one instance in illustration of the present Post system, of which we were personally cognizant, that his Lordship (to whom we send a copy of our paper) may be able to form a correct opinion of the nature and extent of the evil. In the township of Vaughan, ten miles north of this city, which contains about 5000 inhabitants, there is but one Post office, except one at Thorn Hill, a village upon Yonge Street, which street divides the Township from that of Markham. This office is at Pine Grove, a small village in the south west corner of the Township, to which the inhabitants in the northern and eastern parts seldom have occasion to go. Now there are several well settled neighborhoods, almost villages, in the north part of the Township, from some of which a person would be obliged to travel ten or twelve miles to get a letter or paper directed to him. Upwards of two years ago a petition, numerously signed, was sent from one of these neighborhoods to the Deputy Post Master General, praying for a Post office, and representing that the Mail in its transmission from the front to the rear of the Township, passed within two and a half miles of them, and it would therefore only require the extra travel for that distance to supply them. An answer was received, that as soon as the Post Office Surveyor could visit the place and report, the matter would be attended to. After waiting several months and writing to the Surveyor, the people gave it up as a fruitless attempt. More than a year elapsed and as a final effort the Surveyor was written to

again and requested to state once for all, whether there was any hope of success. He replied that he had made his report &c., but that in consequence of its being necessary to refer to England on every point, delay was unavoidable. We have heard of other neighborhoods similarly situated; after petitioning and waiting, and striving for two or three years, they have given up in despair. A respectable farmer in the part alluded to, of this very township, and to us the other day, "I have no doubt that fifty copies of your paper would be taken in our neighbourhood if we had a Post office," and it is the same in other places. A few persons in that locality have subscribed for our paper, and they were obliged to make arrangements being the best they could adopt, to call for it at the Publisher's in Toronto, more than twenty miles distant! Such is the practical effect of this clumsy and absurd system.

PROSPECT OF CHEAP FREIGHTS.

A Company was, some time ago, formed in this city, for the purpose of procuring the construction of a line of Propellers, of a large class, to ply between Toronto and Oswego. The proposed capital of the Company is £200,000, to be divided into 8,000 shares, of £25 each. The Propeller Ireland, which was placed upon Lake Ontario last summer, may be regarded as the first of a larger, and better class of Propellers, than any that have hitherto navigated our great "inland seas." There are two reasons why the carrying out of the objects of this Company, will be likely to reduce the rate of freights, the exorbitant nature of which has long been a subject of complaint with the merchants of Upper Canada, while it has occasioned loss to the farmers.

First, A superior class of Propellers will be able to carry produce at cheaper rates than a class of Schooners held by individuals, and not running in lines, or regulated on any system of organization.

And Secondly, their existence will necessarily produce that lively competition which never fails to bring down prices to the lowest remunerating point. Combinations of different Companies engaged in the carrying trade, are sometimes carried out to such an extent as to create something like a monopoly. In these cases the public have no remedy but in the organization of rival companies. We have known, in some seasons, a combined monopoly of more than half a hundred Erie Canal boats, with the Steamers running between New York and Albany, by which the rates of freight were raised to a very high point, and the public suffered serious injury. Similar combinations have, on different occasions, been formed between the proprietors of the two lines of Steamboats on Lake Ontario, and very high rates, during the existence of the combination, been maintained, especially for passengers. On the other hand, quarrels between the rival lines have produced ruinous and consequently transient competition. The fever of rivalry has been succeeded by the chilling influence of unchecked monopoly. Nor would it be reasonable to expect any other result to flow from a species of competition that was the offspring of mere personal pique. Extreme competition is the intoxication of commerce, and when carried to a ruinous extent is a species of commercial suicide. A trade that is not remunerative cannot last. Whilst we are anxious to see vigor, energy, and life infused into the carrying trade; whilst we are anxious that the rates of freights should be such as not to be unjust to the farmer, we are also anxious to see the trade placed on the healthy basis of remunerating prices; on such a footing that both the traders and the public will be benefited. And such, we hope, will be the character of the competition that will arise out of the establishment of the "Canada Steam Navigation Company." The origin of this Company is associated with no personal animosities, no private feeling and no unworthy motive. Its establishment is intended to supply a want long felt by the merchants and farmers of Upper Canada; and if a low but remunerative profit be sought and received with satisfaction, great benefit will accrue from the Company's operations.

A Marine Railway Company has also been established in this City, with a proposed capital of £12,000. They have purchased Dr. Rees' wharf, and the property adjoining, for the sum of £8,500. The Dock which it is intended to construct, will cost £1,000; and the necessary machinery for building vessels £5,000 more. The capital Stock of this Company is evidently too limited to effect a great purpose.

The Navigation Laws of Great Britain which restricted the carrying of foreign grain to supply the English Market to British ves-

els, having been suspended, a lowering of the rates of freight must follow as the consequence of the increased competition which, from the employment of foreign vessels, will be created. The maintenance of these laws has been injurious to the interests of Canada, by throwing into the hands of British ship-owners a monopoly of the trade between this Colony and England; and the rates of freight have consequently ruled much higher at Quebec than at New York. Now, however, the Canadian Provinces will have fair play, and aside from physical disadvantages, the rates of freight, like water left to itself, will find their true level.

HONOUR TO THE PLOUGH.

Though clouds o'ercast our native sky
And seem to dim the sun,
We will not down in languor lie,
Or deem the day is done;
The rural arts we loved before
No less we'll cherish now;
And crown the banquet, as of yore,
With Honour to the Plough.

In these fair fields, whose peaceful soil
To faith and hope are given,
We'll seek the prize with honest toil,
And leave the rest to Heaven;
We'll gird us to our work like men
Who own a holy vow,
And if in joy we meet again,
Give Honour to the Plough.

Let Art, arrayed in magic power,
With Labour hand in hand;
Go forth, and now in peril's hour
Sustain a sinking land.
Let never Sloth unnerve the arm,
Or fear the spirit cow;
These words alone should work a charm—
All Honour to the Plough.

The heath redress the meadow drain,
The latent swamp explore,
And o'er the long-expecting plain
Diffuse the quickening store;
Then fearless urge the furrow deep
Up to the mountain's brow,
And when the rich results you reap,
Give Honour to the Plough.

So shall Health by pasture green
And nodding harvests roam,
And still behind her rustic screen
Shall Virtue find a home;
And while their bowers the muses build
Beneath the neighbouring bough,
Shall many a grateful verse be filled
With Honour to the Plough.

Literary Department.

NATURAL BEAUTIES OF IRELAND.

Every school boy who has read a geography, has learned something about the Giant's Causeway, in the South of Ireland. A description of it in a somewhat different form from what he may have read before, will not fail to interest, if it does not instruct the Canadian reader. We select the following graphic and beautiful description from the very interesting work of Dr. Durbin, entitled "Observations in Europe."

The afternoon was calm, and we seized the opportunity to row out to sea, turn a headland to the west, and enter the remarkable cavern, one of the greatest curiosities of the coast. We had four rowers and a gallant little boat that "rocked lightly over the tide." In ten minutes we doubled the perpendicular cape to our left, and a natural arch, ninety-six feet high and about twenty feet wide at the base, opened before us. It was high tide, and the heavy swells of the sea were rolling under it into a cavern which seemed of interminable length. The reverberation of the rushing waves was truly sublime. As our boat glided under the majestic portal, we could not restrain the wild hurrah; and the boatmen, catching the enthusiasm, repeated the acclamation with inspiring effect. We all panted, held our breath, and felt the slow but omnipotent swelling and sinking of the sea, as if it were the heaving of the lungs of the world.

Gliding out from the dark cavern, we rowed along the coast eastward, just near enough to have a good view of the successive ranges of well-defined basaltic columns like palisades inserted in the face of the cliffs, which were broken into headlands and caves, and rose from 300 to 400 feet to the table-land, which gradually declined towards the country. The ranges of columnar basalt were parallel to each other, and separated by strata of sandstone and coal. Men were working the coal seams high up in the face of the cliffs.

The small coves which lie between the headlands are full of basaltic rocks; and their banks rise precipitously in the form of amphitheatres, and were covered with grass, on which flocks of sheep were feeding.

The lowest columnar formation is at the water's edge, and partly covered at high tide. It is in

three divisions, and the upper ends only of the columns appear, like piles of timber driven into the earth. The surface is not even, some parts being higher than others. The columns are of different shapes: a few are triangular, the majority five or six sided, and occasional octagonal. They are closely fitted to each other, and articulated in joints, like a nest of saucers, the joints being from twelve to thirty inches in length.

If the following scenes described by the same writer, have such charms, for the more transient visitor, who is hurrying through the country; who can look back to no early associations connected with these scenes in the happy days of childhood; whose delight is unassociated with the "pleasure of memory," and arises spontaneously from the grandeur and magnificence of the objects themselves; what must be the delight, what the charms and fascinations which such scenes must have for those who drew their first breath there; who first wept, played, and loved there; who claim that as their country; who regard her beauty as their just pride and natural delight? If a stranger would desire such a spot for his last resting place, in what language of admiration shall the native of the country depict her natural beauties, and rehearse her old associations! But alas for Ireland! she is immersed in the lowest depths of human misery. The poetic feeling is banished by the pangs of hunger. The beautiful and the lovely are forgotten, or their presence only mocks the misery of dying thousands. The land of beauty has become the land of misery. Were the writer of the following to be transported to the dying bed of but one of the thousands of starving families, with what altered feelings would he look upon the scene! What a contrast would there be between it and the beautiful scenes he has described!

The lakes of Killarney lie in a semicircle around the base of a range of mountains, the highest in Ireland, called Macgillicuddy's Reeks, whose moss-covered sides and towering peaks add greatly to the charms of this beautiful spot. The lakes are three in number: the Lower Lake, Turk Lake, and Upper Lake. The two former are properly one sheet of water, being on the same level, but nearly separated from each other by a promontory that juts out from Muckross. The two latter, three miles apart, are connected by a long, winding channel. Our hotel lay upon the northern shore of the Lower Lake; but as the best views are to be obtained by taking boat at the upper or southern extremity, we made our arrangements for a car to convey us to Dina's Island, at the end of Turk Lake, engaging a boat and rowers to meet us there. After an early breakfast we set off, and enjoyed what is rather rare at Killarney, a fine day, with a slightly hazy sky; the very atmosphere for the enjoyment of lake scenery.

Before arriving at Dina's Island, we turned in from the road to see the ruins of Muckross Abbey, which lie upon Mr. Herbert's grounds, near the edge of the Upper Lake. Entering the grounds through a neat iron gate, we found a clean gravel road leading to within a hundred yards of the ruins, which are surrounded by fine old trees, with their roots twisted about the moss-grown rocks. A crumbling square tower still rises above the old walls, some of which remain in pretty good preservation. A thick mantle of ivy throws a richness and softness over the whole ruin; a perfectly-preserved Gothic window in the northern wall was overhung with its deep-green masses. One of the chapels is filled with vaults raised a few feet above the ground, covered with a tangled growth of flowers and ivy. I had seen the costly tombs of Pere la Chaise; I had stood among the monuments of the dead in old cathedrals and gorgeous Pantheons; but never before had I seen a spot which inspired me with a wish that my last resting-place might be there. Around me lay the graves of Irish chieftains in the chapel where, centuries before, the prayers of holy men had been offered night and morning; and now its shattered walls were covered with flowers, where bees gathered sweetness, and seemed, with their soft hum that filled the quiet air, to prolong the requiem for the departed. In one of the courts was one of the finest yew-trees I had ever seen. Its old arms stretched over the walls, and the upper branches formed a green dome for the entire court.

We left the abbey, and returned to the road through Mr. Herbert's beautiful grounds. Just

as we entered the car, a little girl of twelve or thirteen ran up to us with pears to sell; and though the car moved on rapidly, she kept up with us with ease, urging us to purchase. Unfortunately, I had no small money, and I told her so: when she replied, in a breath, "May your honour's word never be doubted!" We stopped, took her fruit, and promised to leave the money with the driver; and her ready acquiescence in the arrangement showed that she was willing to trust our "honour's word." Arriving at Dina's Island, we found our boat ready, embarked, passed through the channel, and in an hour were in the Upper Lake. Closely hemmed in by the mountains—clothed nearly to their summits with rich purple heather—and thickly studded with islands, some of them naked rocks, and others covered with rich flowering shrubs, noble ash-trees, and more striking than all, with the beautiful arbutus, this little lake combines a variety of lovely scenes that cannot be surpassed. Throughout all the lakes, nothing struck me more than the wonderful richness of the foliage and the bloom of the wild flowers. The arbutus, elsewhere but a shrub, here often becomes a large tree, and, with its many-coloured leaves and tempting berries, adds greatly to the beauty of the little islands on which it flourishes so luxuriantly. A number of neat cottages built by the proprietors around the banks of the lake add to the picturesque effect.

The narrow channel between the Upper and Turk Lakes affords a pleasing variety of river scenery. The Eagle's Nest, however, is the great point of attraction; it is a rugged mountain, some twelve hundred feet high, in whose craggy peaks the golden eagle has his eyry. One of the finest echoes for which Killarney is so celebrated is heard at this point. We had two buglemen with us, and their sonorous notes awoke a thousand echoes from the surrounding hills, that prolonged the sounds with magical effect. A cannon was fired upon shore, and its continued reverberations were like bursts of thunder among the mountains. Passing down the channel, we approached Weir's Bridge, a picturesque old structure, thrown across the stream near its mouth in Turk Lake. The channel runs with great rapidity; and, as there is but one arch affording a passage for boats, it sweeps wildly through this narrow way, and some skill is required to effect the shoot without accident. One of our company, who had the helm, was hardly quick enough in his movements, and the boat was hurled with such violence against a projecting rock as to throw one of the boatmen off his balance, and almost to give us all a plunge into the rapid stream. At last we shot through, and soon emerged into the open lake below.

Turk Lake is less striking than the Upper Lake, but yet abounds in beauty. But the charms of the Lower Lake eclipsed both of the others. What a sweet spot is Glenna, with Lady Kenmare's pretty cottage, embowered with shrubs and flowers, by the water side, and the high peak of the mountain behind it! But the chief attractions of the lake are the island of Innisfallen and Russ Island. The approach to the latter by water affords a more exquisite scene than I remember on any of the lakes of Switzerland; but Innisfallen is a perfect paradise. Its noble ash and yew trees, its thickets of arbutus, its wilderness of flowers, its sunny lawns and shaded dells, and the crumbling ruins of its old abbey, make up a scene of varied loveliness, within a compass of thirty acres, that cannot be rivalled, I believe, in the world. I could hardly tear myself away from the spot, and adopted heartily the words of Moore:

"Sweet Innisfallen, fare thee well,
May calm and sunshine long be thine;
How fair thou art let others tell,
While but to feel how fair is mine.

Sweet Innisfallen, fare thee well,
And long may light around thee smile,
As soft as on that evening fell
When first I saw thy fairy isle."

I had but one day to spend at Killarney, and could have enjoyed weeks; but our plans could not be altered, and we reluctantly bade adieu to the lakes and returned to our hotel.

On the east of the lakes are the domains of Mr. Herbert and of Lord Kenmare. To the latter the town of Killarney belongs; and I was disposed to form a bad opinion of him from the pauperism and wretchedness I saw there, until I learned that the land is held by others under him, under long leases. His domains generally seem to be improving; and, though many of the poor in the neighbourhood speak ill of him, I was told that he was making judicious exertions for the benefit of his people. This, of course, can be only said of him in comparison with others. A man that derives £40,000 a year from an estate, by means of the toil of his fellows, is bound to do a great deal for their comfort. It was a repulsive feature in all the fine domains about Killarney that they were encompassed by high walls, their paradisiacal

beauty being thus kept out of sight of the wretched peasantry around. The lake shore cannot be seen except by permission to pass through the grounds of some of the rich proprietors. The boat that carried us over the lakes brings reverence to Lord Kenmare. A noble crew we had: fine, full-chested fellows, with bright eyes and ready tongues; and my heart bled for them, toiling so willingly for their pittance of tenpence a day. Yet they are full of the sense of wrong: God forbid that it should ever be ground out of them! "We lead a dog's life here, so we do; and it'll never be better," said one of them, sadly, as, with his fellows, he was rowing us over their own beautiful lake. He spoke truth. At all events, it will never be better until the soil of Ireland shall be restored to Irishmen.

From Brown's Whaling Cruise.
ETCHINGS OF A WHALE CRUISE,
A WHALE CHASE.

April 8th, 1843. We were running down for the Albatru Islands, with a fine steady breeze. The morning was bright and clear, and the water of that peculiar color which whalers regard as the favorite resort for whales. I had the forenoon watch below, and was just congratulating myself upon getting through with my 'double altitudes,' when the loud, clear voice of a man at the mast head came ringing down the forecastle.

"There she blows!" was the thrilling cry.
"That's once," stated the Captain.
"There she blows."
"That's twice, by jingo."
"There she blows."
"Three times! Where away, Tabor."
"Off the weather bow, two points."
"How far?"
"A mile and a half. There she blows."
"Sperm whale! Call all hands."

There was a rush on deck, each man trying to get to the scuttle first. Then came half a dozen loud knocks, and a hoarse voice shouting:

"Larboard watch ahoy! Turn out my lads! Sperm whale in sight! Heave out! Lash and carry! Rise and chime! Bear a hand my lively hearties!"

Those who were 'rolled in' rolled out as soon as possible, and buckled on their ducks, in less than two minutes were all on deck, ready for orders. The tubs were put in the boats, and the main yard hauled aback. We all now perched ourselves in the rigging, and kept a sharp look-out on every side for the whale's next rising. Twenty minutes had elapsed since the spout was first seen: twenty five passed and the Captain began to get in a state of nervous anxiety. We strained our eyes in all directions to "make a spout." Half an hour flew by and no spout was seen. It began to look like a hopeless case, when Tabor, whose visual organs appeared to have the power of ubiquity, sang out—

"There she blows! there she blows!"
"Where now!" roared the captain.

"Off the weather quarter! Two large sperm whales, sir. Go it, boats."

"Clear away the boats. Come down from the mast-head all you that don't belong there. Bear a hand! we'll take them this rising!" shouted the captain, in a fierce sharp voice.

"All ready, sir."
"Lower away, then."

The waist and larboard boats were instantly let down ready to head on. Capt. A—and some of his boats crew being too ill to man the other boat, we struck off for the whales without them. I pulled the aft oar, as usual; and as by this time I was as tough and muscular as my comrades, the boat danced along the water in fine style. Although the larboard boat was much easier pulled, and had the oldest and stoutest of the whole crew, we contrived by unusual exertions, to keep ahead of her till the real tug of war came. Then was our mettle put to the test. One of the whales was leisurely making to windward not more than a mile off.

"Lay back, my lads!" cried P—, pale with excitement. "Keep the larboard boat astern. Never say die. That's our whale—oh, do spring—do spring! No noise—steady and soft's the word."

We replied to this appeal by 'piling up the agony' on our oars. Away sprang our boat, trembling and quivering as she darted through the water—she really seemed to imbibe the general excitement as she parted the clear blue waves and dashed it foaming from her bows. Onward she flew. The larboard bow was hard upon our stern; the whale rolling lazily in the trough of the sea a few darts ahead.

"Oh lay back, lay back!" whispered P—, trembling with eagerness not to be outdone by the mate. "Do spring my boys, if you love gin. Now's your time! Now or never! Oh see him!—see him! how quiet he lies. Put the beef on your oars, every mother's

son of you! Pile it on! That's the way to tell it! Our whale this time."

"Stand up, Tabor," cried P—, in a low voice.

Peeking his ear, Tabor sprang to his feet, and grasped a harpoon.

"Shall I give him two irons?"

"Yes; he may be wild."

Another stroke or two, and we were hard upon him. Tabor, with unerring aim, let fly his irons, and buried them in the sockets in the huge carcass of the whale.

"Stern all!" thundered P—.

"Stern all!" echoes the crew; but it was too late. Our bows were high and dry on the whale's head. Infuriated by the pain produced by the harpoons, and doubtless much astonished to find his head so roughly used, he rolled half over, lashed the sea with his flukes, and in his struggles, dashed in two of the upper planks.

"Boat stove!—boat stove!" was the general cry.

"Silence!"—thundered the second mate, as he sprang to the bow, and exchanged places with Tabor.

"All safe, my hearties! stern hard! stern! stern before he gets his flukes upon us!"

"Stern all!" shouted we, and in a moment more we were out of danger. The whale now "turned flukes," and dashed off to windward with the speed of a locomotive, towing us after him at a glorious rate. We occasionally slacked line in order to give him plenty of play. A stiff breeze had sprung up, caused a rough chopping sea, and we leaked badly in the bow planks. It fell to my lot to keep the water bailed out; a ticklish job, the last—for, as the second mate said, "a single turn would whip off a skin as slick as goose grease."

Notwithstanding the roughness of the sea, we shot ahead with incredible swiftness; and the way we walked past the harbour boat, whose crew were tugging and laboring with all their might, was surprising.

"Hoora for the waist boat!" burst from every lip. Three hearty cheers followed, much to the annoyance of the other boats crew and mate. We exultingly took off our hats and waved them a polite "good bye," requesting them, if they had any news to send to windward ports, to be quick about it, as it was inconvenient for them to stop just then. I believe Solomon says it is not good to be vain glorious. At all events, while we were skimming along so gallantly, the whale suddenly milked, and pitched the boat on her beam ends. Every one who could grasp a thwart hung on to it, and were all fortunate enough to keep our seats. For as much as a ship's length the boat flew through the water on her gunwale, foaming and whizzing as she passed onward. It was rather a matter of doubt as to which side would turn uppermost, until Tabor slacked out the line, when she righted. To have a boat with all her irons, hances, gear and oars, piled on one's head in such a sea, was rather a startling prospect to the best swimmer.

Meanwhile the whale rose to the surface to spout. The change in his course had enabled the mate's boat to come up; and we had on our oars in order that Mr. D— might lance him. He struck him in the 'life' the first dart, as was evident from the whale's furious dying struggle; nevertheless, to make sure, he hauled up and churned a hance back of his head.

I cannot conceive anything more strikingly awful than the butchery of this tremendous leviathan of the deep. Foaming and breaching, he plunged from wave to wave, flung high in the air torrents of blood and spray. The sea around was literally a sea of blood. At one moment his head was poised in the air, the next, he buried himself in the gory sea, carrying down in his vast wake a whirlpool of foam and slime. But this respite was short. He rose again, rushing furiously upon his enemies; but a slight prick of a lance drove him back with mingled fury and terror. Whichever way he turned, the harpoon goodly him to desperation. Now and again the intense agony caused him to lash the water with his huge flukes, till the very ocean appeared to heave and tremble at his power. Tossing, struggling, dashing over and over in his agony, he spouted up the last heart's blood. Half an hour before he was free as the wave spouting in all the pride of gigantic strength, and unrivalled power. He now lay a lifeless mass—his head toward the sun, his tremendous body heaving to the swell and his destroyers proudly cheering over their victory.

GRANDEUR OF NATURE.

Ever attentive to her interests, Nature replaces in one spot what she has displaced in another. Ever attentive to beauty, and desirous of re-creating all things into their original dependence on

herself, she permits moss to creep over the prostrate column; and ivy to wave upon the time-worn battlement. Time, with its gradual, but incessant touch, withers the ivy and pulverizes the battlement. But Nature, ever magnificent in her designs!—who conceives and executes in one and the same moment;—whose veil no one has been able to uplift; whose progress is more swift than time, and more subtle than motion; and whose theatre is an orbit of incalculable diameter, and of effect so instantaneous, as to annihilate all idea of gradation; jealous of prerogative, and studious of her creations,—expands as it were with one hand what she compresses with another. Always diligent—she loses nothing. For were any particle of matter absolutely to become lost, bodies would lose their connexion with each other, and a link in the grand chain be dropped. Besides, so delicately is this globe balanced, that an annihilation of the smallest particle would throw it completely out of its sphere in the universe. From the beginning of time, not one atom, in the divisibility of matter, has been lost; not the minutest particle of what we denominate element; nor one deed, word, or thought, of any of his creations have ever escaped the knowledge. nor will ever escape the memory of the Eternal Mind—that exalted and electric mind which knows no past, and calculates no future!— [Sublimities of Nature.

Scientific.

EXPLOSIVE COTTON.

It may be unknown to some of our readers that a recent discovery has proved that common cotton soaked in nitrous and sulphuric acid, will produce an explosive substance of greater force than that of gunpowder. America, England, France, and some one of the German States, claim the merit of the discovery. Though it has received the name of gun-cotton, it is very doubtful whether it will to any great extent take the place of gunpowder. It is found to answer well for the purpose of blasting rocks, and the fact of its being considerably cheaper than gunpowder will cause it to be extensively used for that purpose. The Ordnance Department of England have decided that its use in the British army would not serve any good purpose. In Russia and some other countries the Governments have prohibited its manufacture by private individuals. When used in guns it exerts a force greater than gunpowder; but it is liable to explode at too low a temperature, and as the gun became hot, the use of the gun-cotton would become dangerous. The following describes the method of making it:—

Take a glass tumbler or other vessel of glass, and put into it half an ounce or thereabouts of clean cotton, of good quality, press it gently to the bottom of the tumbler with a glass rod. Pour on this cotton a small proportion of the prepared acids just sufficient to saturate it—then add a like quantity of cotton upon this, and acid enough to saturate it, continue to add cotton and acid in like manner, until the tumbler is two thirds full. The acid must not be in a greater quantity than sufficient to saturate the cotton, that is, it must not be in excess, or otherwise the cotton will be dissolved.

After you have advanced thus far, loosen up the mass from the bottom, and stir it round gently. Cover it over with a piece of glass, and let it stand for thirty minutes.

It might be pressed and stirred several times with the glass rod, to insure uniformity in the quality of the cotton. At the expiration of thirty minutes put it on a plate and press it gently to remove some of the acid, then pour on it a large quantity of water; the object of adding the cotton in small quantities will now be perceived, that by pouring the water on the mass it becomes more easily washed, afterwards put it in a vessel of water, and continue to wash until every trace of the acid is removed from the cotton, then pour the cotton and water into a clean rag, wring it dry; spread it out in a warm room to dry. After being thoroughly dried and carded, it is ready for use as Gunpowder.

The acid used to saturate the cotton is composed of the following:

- Equal parts by measures of Sulphuric Acid and Nitrous Acid.

Sulphuric Acid, of good quality, which has not been weakened and discoloured by any foreign matter, and nitrous acid of the strength of 1-45, or, as chemists here, who make it for sale, label the bottle FFFP

After these acids are mixed, they should stand long enough to become cool before using.

You can prepare the Nitrous Acid by distilla-

Put in a glass retort: 10 parts, by weight, of dried Nitrate of Potash, and 6 parts, by weight, of Sulphuric Acid; apply the heat of a lamp to the retort, and keep the glass receiver cool with a wet rag. The gas which comes over is condensed into a limpid fluid, of a deep orange color, and fumes when the stoppl is removed; all the vessels used in preparing and washing the cotton should be of glass, as the cotton would otherwise attack them and injure the quality of the cotton, by reducing the strength of the acid.

For the Ladies.

TAKE IT EASY.

- Take it easy! life at longest But a lengthened shadow is And the brave as well as strongest Dare not call tomorrow his! Take it easy—for to-day All your plans of wisdom lay. Take it easy! done with fretting. Meet your neighbor with a smile, From the rising sun to setting Love the present all the while. Take it easy! every vow Make in reference to now. Take it easy! what is hidden Or is wrong, or seemeth so, Leave it as a thing forbidden, Out of which a curse may grow! Take it easy! never pry Into what will cause a sigh. Take it easy! daily turning To the monitor within, On its altar always burning Keep an incense free from sin! Take it easy! never fear While you keep your conscience clear! Take it easy! ever leaning To the scales of truth and right; Happiness from virtue gleaming, Peace of mind from wisdom bright! Take it easy! for at best, Life is but a sorry jest.

From the N. Y. State Journal.

WOMAN IN THE LAST EXTREMITY.

It is now nearly thirty years since the proud spirited and accomplished lady of Mr. W— performed the last act in the tragedy of life, under the following thrilling circumstance.

The family had just dined, and Mrs. W— was quietly seated in front of the wide open door of their elevated mansion, side by side, but not unalteredly, contemplating the changeful shadowings which the half clouded sun of September was casting upon the chequered scenes before her. The wild winds whistled mournfully through the half-leaved boughs of the jessamine and lilac. The withered leaves of the shade trees, and the faded flowers of the garden lay scattered on the green grass plat of the door yard, while directly at the foot of the hill on which stands the mansion to the present day, foamed and tumbled and boiled along in full prospect, the cataract waters of the Black River, whose everlasting din is associated with the memory of a fair child that has gone to the land of its eternal dreams.

Mr. W— had returned that morning from the army, which was stationed upon an important frontier post, at a distance of only a few hours travel from his own residence. The official capacity in which he acted, for the government gave him the responsible charge of a large amount of money, in relation to which he had for some time been suspected of embezzlement, but had so adroitly managed the matter to escape detection. A secret negotiation had been formed between the agents of the government, and certain of the neighbors of Mr. W—, to discover, if possible, the disposition which had been made of the missing money, and it was upon the very afternoon that is stated above, that the desperate experiment was tried upon the person of Mr. W—, which proved successful, so far as the government was involved, but most fatal to the wife of the officer, whose participation in the guilty transactions of her husband was confessed by Mr. W—, on the supposition which had been forced upon him, that his life depended upon his disclosing immediately the spot in which the abstracted moneys were deposited.

Immediately after dinner, Mr. W— started to the village to transact some business, and was met by the men in pursuit of the lost treasure, who prevailed upon him to accompany them into the woods under the pretence of fishing or hunting. When the party had got entirely out of the hearing of the villagers, and had arrived at the margin of a deep pool of water, Mr. W— was suddenly seized upon by both of his companions, plunged into the water, and threatened with being instantly drowned, if he did not make a full and accurate confession of the disposition he had made of every dollar of the money that was missing. In this critical dilemma there appeared to be no hope; it was utterly useless to cry for assistance, where nought but the trees of the forest looked down upon his persevering attendants, and to ask God for mercy at this unexpected moment of peril, was of no use to him who could only breathe out the prayer of a guilty soul. They plunged his head under water a few times, demanding his confession at each interval of relief, and continued to keep him under a little longer upon each successive ducking, till at last the chilling fear of death had laid its iron grasp upon his heart, and he tremblingly gave way to the importunate entreaties of his desperate companions.

The conditions of his life had been explicitly stated to Mr. W—, and it only remained for him

to comply by frankly confessing the whole of the truth. This he did by informing them that the money had been sewed into a quilt or counterpane, which they would find in a specified apartment of his house. Mr. W— was then allowed to accompany his attendants in search of the treasure under the power of a writ which had been previously provided for the occasion.

As they entered the house, Mrs. W— was found in the contemplative attitude which we have already described in the commencement of our story. She suspected the object of the visit of her husband's attendants, and did not extend towards them any of the common courtesies of etiquette. A sudden start, in which contempt and astonishment were abruptly mingled, was the only attention which she bestowed, upon the posse as it entered the house. Mr. W— proceeded to inform his lady that he had been compelled, for the safety of his life, to disclose the secret of their joint embezzlement and guilt, and that the officers in company with him would now take possession of the treasure which had concealed. The lips of the proud woman quivered, her haughty eye flashed fire and vengeance, and her whole frame was convulsively agitated during these confessions of her husband. As Mr. W— concluded, she raised her arm into that most expressive attitude of the determined orator, which tells that there is no compromise of terms to be accorded to, and pointing significantly towards her husband, she exclaimed—"Base coward! faint hearted fool! For life, then, it is, that you compromised your honour and annihilated my reputation. Go, then, and enjoy as you may, alone the mean life you have purchased at expense of all that a man would care to live for. Yes, alone, I say, for you shall not have me to share your infamy! I will put my courage to the trying test—and see you, sir, if that will fail!"

As her emphatic speech was finished she sprang out of the door, rushed through the yard, flung open the gate, and in less than one minute reached the banks of the mid stream, almost before the suspicions of her fatal intention had taken hold of the minds of the spectators of her agitated demeanor. Mrs. W— walked deliberately out upon the point of a shelving rock which projects over a most furious section of the dangerous stream, and then suddenly turned with an air of triumph, to the shore. She cast one last look upon the quiet village which lay between her and the burning west, out of which the golden rays of the setting sun were streaming over hill-top and tree, and fast found his way on roof and dome and spire and cloud. "I have gained the victory!" she exclaimed to her pursuers, and the same instant the dark river closed its winding sheet of waters about her. She had disappeared among the rocks and foaming waters of that stream out of which no earthly arm could rescue her.

It is only a few months since all the material facts we have recorded, were related to us while standing upon the identical rock which bears the name of the distinguished lady referred to, and the memory of thousands now living will readily fill up the blank we have purposely made in this hasty sketch.

Scraps.

Why is a man who keeps his eyes shut like an illiterate schoolmaster?—Because he keeps his pupils in darkness.

FAIR GAME!—Mrs. Polly M. Woodcock, of Lowell, has petitioned to the "General Court" of the old Bay State, for permission to call herself Mrs. Mary M. Wood. It seems that Woodcocks are not allowed to be caught during certain months in the year in Massachusetts, and as the petitioner is a young and pretty widow, she doesn't like to have a mere name the obstacle in the way of her happiness.—[New Heaven Courier.

A POLITE YOUNG VAGABOND.—In Dresden, a little girl was heard to call from the window of a mean house, to her opposite neighbour, "Please, Mrs. M—, another sends her best compliments, and, if it's fine weather, would you go a begging with her to-morrow?"

KILLING THE DEVIL.—A young girl from the country, lately on a visit to Mr. A—, a Quaker, was prevailed on to accompany him to a meeting. It happened to be a silent one, none of the brethren being moved by the Spirit to utter a syllable. When Mr. A— left the meeting-house, with his young friend, he asked her, "How dost thee like the meeting?" To which she promptly replied, "Like it! why I can see no sense in it; to go and sit whole hours together, without speaking a word, it is enough to kill the Devil." "Yes, my dear," rejoined the Quaker, "that is just what we want."

RUNNING FROM THE WOMEN.—A laughable incident, says the Wheeling Argus, occurred at Monterey, during the late battles there. A Texan Ranger, in advancing through the houses to avoid the batteries in the streets, broke into a room where several Mexican ladies were kneeling in prayer before a crucifix and lighted candles. They arose to their feet, threw their arms around him, and in their own language supplicated his protection. Not understanding their motives, he ran out into the streets, and resisted the efforts of others to go in, saying the women would smother them. He could stand the fire of men, but not the attack of the women.

A SILVER COFFIN.—The church of St. Alexander Nevski, at St. Petersburg, is named after the canonized Grand Duke Alexander, whose remains were brought there in a silver coffin. It was in the same church Kohl, the traveller, was told by a guide, pointing to a corner of the building, "There lies a Cannibal." The inscription announced it to be the Russian General Hannibal; but as the Russians have no H, they change that letter almost always into K, and hence the extraordinary and not very flattering name given to the deceased warrior.

To a number of our Agents we have sent half a dozen copies of each number, and paid the postage. We shall, for the future, until we hear from them, send them but one copy each, which will be sufficient to exhibit as a specimen, and as they may consider it theirs, they will probably not object to pay the postage. We are trying an expensive experiment, and must economize in little matters. We beg our subscribers, agents, and all others who approve of our enterprise, to remember that it depends upon them whether we sink or swim. Let every subscriber make a point of inducing, at least, one of his neighbors to send us his name, and our list will soon fill up. From the nature of our several occupations, it is impossible for either of the Editors to make a tour of the country, to solicit subscriptions or establish agencies. We must depend upon others, and upon the spontaneous good-will of the public.

EXCHANGES.

A few of our American contemporaries have not exchanged with us. Either they have not received our paper, or they refuse to exchange, or having exchanged, we have not received their papers. If the second be the reason of their non-appearance, will each of them be good enough to send us a copy of their last number with the direction written on the margin, under the wrapper, in red or blue ink? They will oblige us, and at the same time convince us that they can show a little courtesy.

Dr. Smith, the author of the "Canadian Gazetteer," has undertaken to act as Travelling Agent in the Western part of the Province. He has our authority to appoint local Agents in the Villages and Townships through which he may pass, obtain Subscribers, &c. &c. No man is better acquainted with the country than Dr. Smith, as his excellent Gazetteer abundantly shows; and few perhaps have displayed a more indefatigable industry than he has done in the compilation of this useful Work. We trust he will be successful in his labours both for us and for himself.

We may mention, that a young friend of ours, Mr. H. Corson, who is on a visit to London, has also kindly offered to act for us in the same capacity.

News Department.

The Late Murder in the vicinity of Toronto.—On Wednesday last, James Hamilton, the supposed murderer of Noah Heaton, underwent a public examination, before the Mayor, Alderman Gurnett, and Hugh Scobie, Esq., which resulted in the commitment of the prisoner to take his trial, at the next Assizes, for the murder of the said Noah Heaton.

The evidence against him is of a circumstantial nature. It appears that Hamilton, accompanied by one John Brown, went out into the country in a light-wagon, on Saturday, the 21st February. They called at several places on the road, and, at the Cottage of Noah Heaton, amongst the rest. They remained there some time, and the old man asked them to take dinner, which they declined. They left the house together, and proceeded in the direction of the wagon, which was standing at the outer-tyers at some distance from the house; but when they came to a corner of a shed in the yard, Hamilton turned round, and said to Brown that he wanted to have some private conversation with the old man. Brown proceeded on to the wagon, and Hamilton came up about five minutes after. It is chiefly on this circumstance that the suspicion rests. Heaton was found murdered next day. By an agreement entered into some years ago, Hamilton was to pay Heaton £20 a year, for which he was to have the use of a Farm of 200 acres during the old man's life, and to hold it in fee after his (Heaton's) death. Some difficulty had arisen between them, and Heaton had commenced proceedings in Chancery against Hamilton, on the ground that the latter had refused to fulfil his engagement.

The foregoing is an outline of the whole circumstances on which the suspicion against Hamilton rests; and we do not think it advisable, at this stage of the proceedings, to say more on this painful subject.

NIAGARA SUSPENSION BRIDGE.—The Albany correspondent of the Rochester Democrat says the stock for the construction of this bridge is all taken. The capital is \$200,000. Half of it was subscribed in Canada, and the other mostly in New York and Philadelphia. Contractors in Philadelphia and Pittsburgh offer to build a good substantial bridge of wire for \$200,000. It will be forty feet wide; the centre track for cars to connect with the Canadian road through to Detroit, and capable of transporting 300 tons over it at once, at a rate of ten miles an hour. There will be two tracks for carriages, and a foot path. It will have three spans, with abutments 200 feet high. It is supposed that it can be completed in two years, which will make it ready for use by the time the Canada road is completed. Such a bridge, spanning the awful gulf, will be almost as grand as the sublime cataract.—[Buffalo Commercial Advertiser.

A bill for the construction of four rail steamers, to run between New York and Liverpool, has passed the American Senate.

AWFUL CATASTROPHE!—Explosion of the U. States Arsenal, West Troy—seven men badly burned—and 3 of them mortally wounded.—This morn-

ing about 10 o'clock, an explosion took place in one of the buildings at the arsenal in a room devoted to the manufacture of 10 inch fuses for Bombs, which destroyed all the fuse composition, blew out all the windows, and injured nearly all the workmen engaged in that part of the building.

The District Council of the Huron District, have determined to borrow £19,000, to be applied to the improvement of the main roads in the District. If they go on at this rate they will hardly thank Mr. Gwynne for his railroad.

EDUCATION IN THE ARMY.—The authorities of the War-Office have issued a notification, that a number of young men, who must be unmarried, and not exceeding 25 years of age, are required in the training school, Royal Military Asylum, at Chelsea, for the purpose of being educated and sent out as school-masters to different regiments, both of cavalry and infantry.

The Halifax mail brings news to the 20th inst., from which it appears that a meeting was held at Mason's Hall, on that day, respecting the Electric Telegraph, through the British North American Provinces. It was a large and influential body; a committee of nine was appointed at the head of which they put George Roney Young. They passed resolutions to express a strong opinion in favour of the project, to organize a company with a capital of £4000, and to petition the Legislature for an act of incorporation.

An American paper says, "There are too many gentlemen paupers at the present day—gentlemen who do nothing—who are maintained by the public—by their relations—or by their wives. They are great nuisances."

REAPPEARANCE OF THE POTATOE DISEASE.—The Cork Reporter of Saturday says:—"A gentleman, residing in the neighbourhood of Kinsale, planted in a hot-bed, about three months since, a quantity of sound potatoes of the quarry kind, and on examining the produce yesterday, which by the forced growth had far advanced to maturity, he found them black and diseased."

More than 1100 emigrants arrived in New York, yesterday. The Roscius alone, brought between 3 and 4 hundred, most of them destitute. Among them was a mother with 12 children, penniless, foodless, and homeless.

POPULATION OF PARIS.—By the Census of 1846, it appears that the population of Paris proper was 1,053,907 inhabitants, and of the department of the Seine 1,356,907.

PAINLESS SURGICAL OPERATION.—We have been informed that, on Saturday last, Dr. Nelson, assisted by his son, Dr. Horace Nelson, removed a large tumor, of several pounds weight, from the thigh of a weak, nervous woman. Mr. Webster, an able Dentist, administered the etherial gas to the patient, which in a few minutes plunged her in such a complete state of insensibility, that she manifested not the smallest sense of pain; and when the effect of the gas was over, she stated that she had experienced no pain whatever, nor was she at all conscious of having undergone the operation, of which she had previously expressed the utmost dread. It is said that the Dr. is quite satisfied of the property of the vapour of ether of arresting sensibility and consciousness for a time, but from the effect it has on the nervous system, the deep and heavy breathing that results from it, leads him to think that it might be attended with serious injury if administered in too great a quantity, or breathed for so long a time. It would appear that the "Lætheon" is extensively employed in the London Hospitals previous to all important operations.—[Pilot.

We understand that the military force now in the Canada will in the early part of the summer, be reduced by three regiments. It is said the 52nd, 71st, and 81st will be the three regiments ordered away. There is also a rumour that one or more local corps will be placed upon permanent footing.—[Quebec Mercury.

We understand that the 52nd received orders by the last mail to leave for England on the opening of the navigation.—[Montreal Times.

LEVEL OF LAKE ONTARIO.—At the end of 1845 the water of the Lake was twenty-seven inches lower than in the June, preceding. In Feb., 1846, it fell three inches more. The water then began to rise about three inches a month till June 1st, when the rise amounted to one foot, leaving the surface still one foot lower than in June, 1845. The level continued the same till last July; when the waters began to fall about three inches a month till November—in which month it rose three, and then fell the same in December—so that at the end of 1846 the level was only three inches higher than at the end of 1845, making the level two feet lower than in June, 1845. The snows and rains of last winter and spring account for the rise till the middle of summer, and the changes since are solved by a reference to the greater or less quantity of rain in the different months of autumn. It would appear in the published accounts in the papers of last year, that the Lakes are at a lower level than common through all the Lakes to that of Superior. From this I have seen no statements.—[Rochester Democrat.

FIRE IN NEW YORK.—The extensive storage warehouse of Wm. S. Moon, in Water st. took fire about 2 o'clock this morning, and was entirely destroyed; together with most of its contents, consisting of a large quantity of cotton, sugar, crates of crockery, &c. A small portion of the cotton was saved in a damaged state. The building was owned by James Cullough. The total loss is estimated at \$100,000—\$66,500 of which was insured, at the different offices in this city, and a small amount in the Brooklyn offices. A workshop and store of Hannah & Laura, copper-smiths, adjoining, were considerably damaged. Two small frame buildings, occupied as a sailors boarding house, were crushed by the falling walls;

and another brick building occupied as a grocery, dwelling, &c., was much damaged. Two or three persons were injured, but not seriously.

THE UNITED STATES NAVY.

We have been placed in possession of the following correct list of the present disposition of the navy, with the names of the commanders:—

IN THE GULF.

| | |
|---------------------------------------------|----------|
| Commodore David Connor, Commander-in-chief. | |
| Frigate Raritan, (flag ship) Capt. Forrest | 44 guns. |
| " Potomac, Captain Anlick | 41 " |
| Sloop Albany, Captain Breeze | 20 " |
| " John Adams, Com'der M'Chuey | 20 " |
| " St. Mary's, Captain Saunders | 20 " |
| Steamer Mississippi, Commodore Perry | 10 " |
| " Princeton, Commander Engle | 9 " |
| " Vixen, Commander Tatum | 3 " |
| " Vixen, Commander Sands | 3 " |
| Brig Porpoise, Lieut. Com'ding W.E. Hunt | 10 " |
| S. Ship Relief, Lieut. Com'ding Bullus | 8 " |

In addition to the above, are the schooners Reeser, Petrel, Bonito, and the store ships Supply and Freedom. The number of guns is uncertain, but may be placed at..... 30 "

Total..... 221 guns

IN THE PACIFIC.

| | |
|-----------------------------------------------|---------|
| Commodore W. B. Shubrick, Commander-in-chief. | |
| Razer Independence, (flag ship) Capt. Lavelle | 54 guns |
| Frigate Savannah, Captain Mervine | 44 " |
| " Congress, Captain Stockton | 44 " |
| Sloop Portsmouth, Commander Montgomery | 20 " |
| " Levanat, Commander Page | 20 " |
| " Warren, Commander Hull | 20 " |
| " Cyane, Commander Dupont | 20 " |
| " Dale, Commander M'Kean | 16 " |
| " Preble, Commander Shields | 16 " |
| Schooner Shark, Lieut. Commanding Howison | 10 " |
| Store Ship Eric, Lieut. Commanding Turner | 8 " |
| " Lexington, Lieut. Com'ding Buley | 8 " |
| " Southampton, Lieut. Commanding Theoburn | 6 " |

Total..... 286

BRAZIL SQUADRON.

| | |
|------------------------------------------------|------|
| Commodore Rossen, Commander-in-Chief. | |
| Frigate Columbia, flag ship, Commander Ritchie | 44 " |
| Brig Bainbridge, Lieut. Commanding, Pennington | 10 " |

Total..... 54 guns.

AFRICAN SQUADRON.

| | |
|-------------------------------------------------|----------|
| Commodore Read, Commander-in-Chief. | |
| Frigate United States, flag ship, Captain Simot | 44 guns. |
| Sloop Marion, Commander Simonds | 16 " |
| Brig Dolphin, Commander John Pope | 10 " |
| Brig Boxer, Lieut. Com'ding Bishop | 10 " |

Total..... 80 guns.

EAST INDIA SQUADRON.

| | |
|--------------------------------------|----------|
| Commodore Biddle, Commander-in-Chief | |
| Columbus, flag ship, Capt. Wayman | 75 guns. |
| Sloop Vincennes, Capt. Paulding | 20 " |

Total..... 95

From the above it will be seen that we have,

| | |
|------------------------|-----------|
| In the Gulf..... | 221 guns. |
| " Pacific..... | 286 " |
| " Brazil squadron..... | 54 " |
| " African..... | 80 " |
| " East India..... | 95 " |

Total..... 736 guns.

In addition to this, we have a steamer on the Lake of one gun, and the "On-ka-hy-ee" in the packet service.

Among the vessels preparing for sea, are the

| | |
|----------------------------------------------------|----------|
| Ship of the line Ohio, Capt. Stringham | 74 guns. |
| Sloop Decatur, Commander Pickney | 16 " |
| Steamer A'leghany, Lieut. Commanding, W. W. Hunter | 4 " |
| " Polk, Lieut. Com'ding, Ozden | 5 " |
| " Scourge, Lieut. Commanding C. G. Hunter | 5 " |
| " Scorpion, Com'der Biglow | 5 " |

Total..... 109 Guns.

New York Herald.

PRINCE EDWARD ISLAND.—The Legislature of Prince Edward Island met on the 26th ult. Mr. Pope was re-elected Speaker His Excellency, among other things, congratulates them upon the improvement of the Public Revenue of the Colony.—[St. John (N.B.) Courier.

Yesterday, about mid-day, the following communication was received, by means of the Telegraph, from Hamilton:—"To the High Constable, Toronto.—Barney Farley, teamster, has committed felony, and left here for Toronto, has a box of stolen property with him, containing five dozen and a half sides of upper leather, and about £20 in cash. If in Toronto, please detain him 14 5/8, 2m. high, dark complexion, black hair; is in company with J. Dimond, supposed to be going to Gearey's Works, below Toronto. Dimond is a lame man; one eye, peck-marked. Supposed he will sell the leather in Toronto. Let me know if arrested. Warrant out for him here.—T. MURPHY." Immediately on his receipt, our very active High Bailiff took steps for his capture; and having learned that a person was offering leather for sale at Shepherd's yesterday, he, with constable Trotter, proceeded on search, and within ten minutes from the time Mr Allan was apprised of the robbery, he captured the party at Mitchell's tavern, on Church street, having the leather with him, and about £16 5s in cash. Farley was then in the act of putting his span of horses to the cart, with the view of proceeding eastward. The activity, with the strict surveillance under which strangers are now kept by the police, does the force and its head great credit. We trust it may not be necessary to put the telegraph often to such a purpose; but when this becomes imperative, it is pleasing to see how much it aids those to whom the preservation of the peace is committed.—[Colonist.

By Telegraph.

NEW YORK MARKETS.

Tuesday Evening, 9th March, 4 past 7. Flour inactive and rather heavy. The low sales reported were made at \$5.34. Sales of Meal at \$5 to \$5.12 1/2. Wheat is selling at \$1.49. Ashes \$1.87 1/2 to \$1.91. Sugars 1 cent lower. Freight heavy: Flour shipped at seven York shillings.

MISCELLANEOUS NEWS.

The Relief Committee of New York have received contributions to the amount of \$75,000. One ship is already laden with corn, meal, clothing, &c., and others are loading. Santa Anna and the enemy's troops marched to the interior. It is pretty certain that Santa Anna is now at Saltillo; and it is even reported that he has engaged in a conflict with General Taylor, but the latter is not believed at Tampico. General Taylor, with General Briggs and Thomas Bates and the second Mississippi regiment, arrived at Saltillo on 2nd February. There is but little doubt but that General Minou will give General Taylor considerable trouble.

An arrival at New Orleans brings the intelligence that the British Mail Steamer Tercel, was lost on the 12th February, north-east of Cardevas. Sixty persons were drowned.

A company of Traders from Santa Fe, which place they left on the 18th January, and state that Col. Donihon with 600 men was met by miles this side of El Paso on the 25th Dec. 25 about 1100 Mexican Chahuhala, when a Lieutenant from the enemy's ranks came forward waving a black flag, and halted within a hundred steps of our line. Donihon's interpreter went to meet him, when he demanded that our Commander should come into their camp and speak to the General. This modest request being declined, the Mexicans told him to prepare for a charge saying, we give no quarters and ask none.

The Mexicans immediately made an attack, and the engagement lasted about half an hour, when the enemy broke lines and fled, leaving arms, baggage, and stores, and 30 dead on the field. Colonel Donihon lost not a single man and had but seven slightly wounded. He took eight prisoners, six of whom have since died.

Latest News by Telegraph.

New York Markets, March 12, 7 p.m. ASHES—Pots at \$4.87 1/2. firm. Pearls mostly \$6.31 1/2.

Flour Market quiet, and parcels on the spot cannot be quoted over \$3.87 1/2 for Genesee. Sale of 1,000 to 1,500 barrels. Fair inquiry for flour to arrive.

Pork is up about \$1 higher than the previous lowest point; sales 300 to 500 at \$12 to \$15 for old prime; \$15.50 for new. 300 bbls. best hams at \$15. 3,000 bbls. hams at 9c. per lb.

The rumour of a battle having taken place between General Taylor and Santa Anna is generally disbelieved.

Toronto Market Prices.

| | | | |
|----------------------------------|----|-------|------------|
| March 12. | | s. d. | s. d. |
| Flour, per barrel, 196 lbs.... | 22 | 6 | a 26 3 |
| Oatmeal, per barrel, 196 lbs.... | 22 | 6 | a 25 0 |
| Wheat, per bushel, 60 lbs.... | 4 | 6 | a 5 1 |
| Rye, per bushel, 56 lbs.... | 3 | 0 | a 3 4 |
| Barley, per bushel, 48 lbs.... | 2 | 4 | a 2 6 |
| Oats, per bushel, 34 lbs.... | 1 | 8 | a 1 10 1/2 |
| Peas, per bushel, 60 lbs.... | 2 | 6 | a 2 9 |
| Potatoes, per bushel..... | 2 | 6 | a 3 6 |
| Onions, per bushel..... | 0 | 0 | a 0 0 |
| Beef, per cwt..... | 18 | 9 | a 25 0 |
| Beef, per lb..... | 0 | 2 1/2 | a 0 3 1/2 |
| Pork, per 100 lbs..... | 22 | 6 | a 26 3 |
| Mutton, per lb., by the qr.... | 0 | 2 1/2 | a 0 4 1/2 |
| Veal, per lb., by the qr..... | 0 | 0 | a 0 0 |
| Bacon, per lb..... | 0 | 3 | a 0 5 |
| Hams, per cwt..... | 0 | 0 | a 0 0 |
| Lard, per lb..... | 0 | 3 1/2 | a 0 5 1/2 |
| Hay, per ton..... | 40 | 0 | a 45 0 |
| Straw, per ton..... | 25 | 0 | a 30 0 |
| Timothy, per bushel, 60 lbs.... | 5 | 0 | a 6 2 |

AGENTS FOR "THE CANADA FARMER."

The following persons have consented to act as Agents for the Canada Farmer. We have not yet been able to appoint Agents in the Western part of the Province, but we hope some persons in that quarter will be good enough to send us their names, without waiting to be asked. 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, }
Lardner Bostwick, } Travelling Agents.
James Wetherald, }

Local Agents.

- Windsor—Mr. James A. H. Gorrie, Bookseller.
Oshawa—Mr. Gavin Burns, Postmaster.
Buenaville—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.
Crafsco—Mr. John Taylor, Postmaster.
Colborne—Mr. Albert Yerington, Postmaster.
Brighton—Mr. J. Lockwood, Postmaster.
River Trent—Mr. Alexander Cumming.
Billerieville—Mr. A. Menzies, Postmaster.
Shannonville, Victoria District—Mr. Hiram Holden, Postmaster.
Napawee, Midland District—Mr. E. A. Dunham, Merchant.
Kingston—Messrs. Oliphant & Watt, Merchants.
Guananque—J. Lewis Macdonald, Esq.
Brookville—Mr. Henry Jones, Postmaster.
Merrickville—Mr. E. H. Whitmarsh, Postmaster.
Comptelle—Mr. Wm. H. Bottom, Postmaster.
Smith's Falls—Mr. Robinson Harper, Merchant.
Perth—Mr. James Allan Postmaster.
Bytown—Captain Baker, Postmaster.
Markham—Mr. David Rescor.
Laughon—Mr. Thomas Noble, Merchant.
York—Mr. Daniel McMullen, Farmer.
Roch—Mr. A. Hurd, Postmaster.

Advertising Department.

Improved Durham Bulls FOR SALE.

ONE, two years and four months old; colour dark red and white, but mainly red. One, one year old; colour nearly the same as above, and promises to make a splendid animal. For pedigrees and further particulars apply to H. Parsons, Ancaster, C. W.

Notice.

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

Brewer, McPhail, & Co.,

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

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

Drug & Medicine Business,

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

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

Toronto, 9th March, 1847.

Mr. C. Kahn,

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

Boot and Shoe Store,

4, CITY BUILDINGS, TORONTO.

SIGN OF THE GOLDEN BOOT.

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

JAMES FOSTER. 1- January 12 1847.

J. Ellis, Civil Engineer.

HORIZONTAL, Inclined, and Undulating Lines of Railways Surveyed; Macadamized and Plank Roads, Canals, Docks, Harbours; every description of Drainage, Tunnels, and Bridges of Brick and Stone, Iron and Wood, both Pendent and Luminant, with correct Specifications.

Sections or Model Maps and Estimates showing the true cost of construction, founded upon Rules and Principles strictly Mathematical, obtained through sixteen years experience and active practice, both as Engineer and Contractor.

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

Peter-street, Toronto, } January, 1847.

FOR Cheap Birmingham and Sheffield Goods, try the

NEW HARDWARE STORE,

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

J. Shepard Ryan,

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

CASH PURCHASERS will find it to their advantage to give us a call, as we calculate on clearing off our Old Stock every winter. Toronto, 1st January, 1847. 1-12m.

R. H. Brett,

161 KING STREET, TORONTO.

GENERAL MERCHANT—WHOLESALE

IMPORTER OF HEAVY HARDWARE, BIRMINGHAM SHELL SHELF GOODS, EARTHENWARE, and GLASSWARE in Crates and Hhds.

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

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

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 Scarborough, to Markham Village, and thence to Scouffville. 15th November, 1846. 2

Swain & Co's Hygeian Medicine,

OR, WORDSDELL'S

Vegetable Restorative

PILLS,

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

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

Authorised Travelling Agents.

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

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

STRIKING CURES.

WHO WISHES TO THROW AWAY HIS CRUTCHES?

Read the following Extract of a Letter received from our Agent at Richmond, Dalhousie Dis't:— Richmond, 5th August, 1846.

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

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

GENTLEMEN.—I have now great pleasure in handing you the annexed certificate, from my wife, which will speak for itself. Your General

Agent, Mr. Wetherald, desired me to give him a certificate as soon as she was cured, but I refused to do so until she had remained well six months. That period has now elapsed, and I am happy to inform you that she has had no return of her complaint, but is in perfect health.

ABRAHAM WILSON.

CURE OF OLD-STANDING STOMACH COMPLAINT,

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

To J. Swain & Co.

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

I remain, Gentlemen, yours respectfully, MARGARET WILSON.

REMARKABLE TESTIMONY.

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

To J. Swain & Co.

Wellington Square, January, 1847. GENTLEMEN.—I have been in the practice of using your Pills myself, and recommending them to others, and I have found them to be unequalled in their effects upon the human system; and I believe your Medicine is a safe and efficient remedy against those afflicting disorders to which mankind is subject.

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

MARK THIS.

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

J. WETHERALD.

CURE OF INFLUENZA.

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

CURE OF INFLAMMATION IN THE BOWELS.

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

CURE OF GRAVEL.

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

CURE OF DUMB AGUE.

Mr. Slater's son suffered a long time from Dumb Ague; and was cured of that distressing complaint by taking six boxes of the Restorative Pills.

CURE OF LIVER COMPLAINT.

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

WONDERFUL CHANGE.

SUSANNAH ZIMES, of Weston, received an injury when four years old, which made her a cripple for years, attended with an alarming swelling in her leg and body. After receiving medical treatment for a long time, without effect, at last I was advised to take the Vegetable Restorative Pills, which speedily reduced my body to its natural size, and my lameness is much relieved; and I am now in a fair way of recovery.

CURE OF CHILL FEVER AND INFLAMMATION OF THE LUNGS.

Mr. E. DICKSON, of Port Rowan, has been entirely cured of Chill Fever and Inflammation of the Lungs by the use of the Vegetable Restorative Pills, even after good medical skill had failed.

WONDERFUL RESTORATION TO HEALTH.

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

CURE OF PAIN IN THE SIDE.

Mr. E. T. Martin, of Bayham, was afflicted with a pain in his right side for two years, but from the use of the Restorative Pills for two months, he was perfectly cured.

CURE OF AGUE AND FEVER.

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

CURE OF LAKE FEVER.

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

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

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

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

Mr. William Beggs, of Barriefield, had been troubled a long time with a Sore Leg, occasioned by his falling upon a stump, which became very dangerous, but after taking your pills for 14 days, he received a total cure.

Mrs. Sarah Wright, of Kelly, had been afflicted with a running sore on her arm and in her throat, which were so bad that she could not take any rest, and the doctor told her she must lose her arm or her life. She was advised to try your pills, but for 8 or 10 days she felt worse; she persevered, and after taking seven boxes, in doses of five pills each night and morning, she was perfectly restored to health.

Mr. George Barnhart, of Tyandena, had been attacked with violent Pleurisy, but after taking 10 pills each night and morning, for a week, he was cured, and is now in perfect health and strength.



Home District Mutual Fire Company.

Office—Nelson Street, opposite Adelaide Street, Toronto.

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

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J. H. PRICE, Esq., Presid. nt.

J. RAINS, Secretary.

All Losses promptly adjusted.

Letters by Mail must be post-paid.

December 26, 1846. 444-

Suopman Wanted.

A YOUNG unmarried man, of good, moral, and active habits, who is well acquainted with the retail part of a Drug business, and who will be ready to make himself generally useful, may obtain a permanent situation, in the city, by addressing (post paid) M. R., Box 57, Toronto Post-Office. The most unquestionable reference will be required.

Toronto, February 23, 1847.

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