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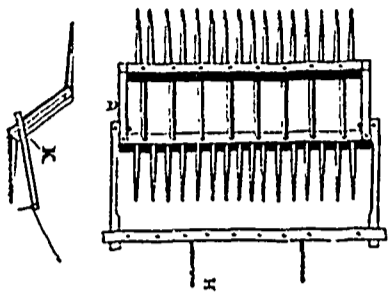
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A Family Journal, devoted to Agriculture, Internal Improvements, Literature, Science, and General Intelligence.



HORSE-RAKE.

We submit the above cut of a horse-rake to our readers, with a good deal of confidence in its simplicity and efficiency. We hope some ingenious friend will take the trouble to construct one and give us an account of its operation. It consists as the reader will see of two heads, and two sets of teeth. The heads are connected together with rods and two end pieces, one of which is marked at D. In the end bars there is a groove, or piece cut out of the middle extending within 14 or 2 inches of each head. The pins (K in the end view) which hold the frame to which the horse is attached (H) slide in this groove, moving from one head to the other as the rake revolves. K represents the end view, with the angle of the teeth. The fine line below K shows the line of draught. As the rake is drawn forward the hay collects on the teeth and against the rods connecting the heads; the teeth answer for handles. When the windrow is reached you have only to raise the upper teeth, when the rake is thrown over and ready for work without stopping. We have never seen one constructed on this simple plan, but believe that will answer a better purpose than those in common use. As to the utility of a good horse-rake, where the ground will admit of its operation we need not say a word.

ON THE MAKING OF CHESHIRE CHEESE.

It has sometimes been a matter of dispute amongst Englishmen which particular county or district is the most famous for the making of cheese. I think, if quantity is to be taken into account as well as quality, the decision must be in favour of Cheshire, as there cannot be less, upon a moderate calculation, than 12,000 tons made in that county annually; a considerable portion of which is of excellent quality.

It is scarcely necessary to premise that milk, from which cheese is made, consists of three distinct parts—*cream*, *curd*, and *whey*—into which, by repose, it spontaneously separates; but the process of separating the whey from the other bodies may, as in cheese-making, be accelerated by infusing a small quantity of simple acid extracted from cured and dried maw-skins, which have been previously dissolved in warm water. This infusion is commonly called "steep" but more properly *rennet*.

The art of cheese-making consists in the complete extraction of the whey, and in the proper compacting and curing of the curd. The richness of the cheese depends upon the quality of the milk, or, in other words, on the proportion of cream which the milk contains. The cheese of Cheshire is professedly made from new milk, or milk from which no cream has been taken. It is, however, well known that in many dairies in the morning before cheese-making a small quantity of cream is skimmed off the previous evening's milk; this cream is either churned by itself, or mixed with whey cream, by which there is obtained

a better quality and greater quantity of (so called) whey-butter. It may appear singular to some, that any portion of cream should be found in whey, but such is the fact, and the means used in Cheshire for extracting it are very simple.

Number of cows kept, and produce.—The number of cows kept for the purposes of a cheese dairy is seldom less than 8 or 10, or more than 70 or 80; and is of course regulated by the size of the farm—these average about 90 or 100 statute acres, upon each of which about 15 or 18 cows are kept. From 18 cows a cheese of from 36 lbs. to 54 lbs. weight is made daily during four or five months of the summer. The annual produce of cheese per cow depends both upon the quality of the animal (with the mode of keeping her) and of the *land*, or rather the *herbage*. I have known many farmers sustain great loss by not feeding their cattle sufficiently well in winter. With judicious management, about 3 cwt. of cheese (of a 112 lbs.) may be considered as the average amount made per annum upon land let for 30s. a statute acre; but in a few instances 5 cwt. per cow, and even more, is sometimes made. This can only be from a small and choice stock.

The season.—It is the practice amongst farmers in this country to arrange so as to have most of their cows calving in the months of March and April; and so soon as the calves are fed or disposed of, the cheese making commences, and continues (excepting in small dairies) to nearly the end of the year. In January and February the quantity of milk obtained is often so small that the farmer prefers selling it in the neighbouring towns or making it into butter. There are however instances, in large dairies (of 70 or 80 cows), of cheese being made throughout the year.

Milking.—The operation commences about five o'clock in the morning, and five or six in the evening. In this country it is the practice for most of the servants, both men and maids, to assist, and for the cows to be milked in the cowhouses (called here "shippens") all the year round. When, as is usual, there is one milker for every six or seven cows, the milking seldom exceeds an hour and a quarter.

The milk of new-calved cows is not mixed with the other until about four or five days calving.

Offices and utensils.—As the evening's milk is seldom made into cheese until the following morning, and sometimes in small dairies (where four "meals" are used) not until the second morning, a cool "milk-house" is necessary; on which account it usually occupies that side of the farm-house least exposed to the sun. The utensils in which the milk is kept are usually portable shallow earthenware vessels called "pan-mugs," and in some dairies leaden or zinc coolers. Most of the milk-rooms have lattice or wire windows for the circulation of air, and the floors are laid in a sloping form for the free escape of the cold water with which they are daily swilled throughout the summer months. If precautions of this nature be not attended to, there is a risk of the evening's milk becoming *sour*; in which case, whatever quantity of new milk be added to it in the morning, the cheese will be *sour* also. I am led to believe that a temperature of so near 50° Fahrenheit as could be maintained, would be best for a milk-house throughout the year.

Some cheese-rooms are occasionally found to be in the summer time too warm, in which case the cheese has to be removed for a time to a cooler part of the house. This is more generally necessary where

the building is slated, and exposed to the noon-day sun; but is seldom or never experienced where the roof is of thatch—The size of these offices is of course regulated by the extent of the farm; where 30 cows are kept I find them as follows:

	Yds.	Yds.	Square	Yds.
Milk-house	6	by 3	or about	18
Dairy	6	by 5	"	30
Salting and drying-house	4	by 5	"	20
Cheese-room over dairy and drying-house	10	by 5	(or 8 by 6)	50

Process of cheese-making.—As the first process—namely, that of extracting the whey and salting—occupies, according to circumstances, from five to seven hours, it is found most convenient to commence it in the morning. This being the case, the evening's milk has to be kept all night in the milk-house. In the morning, the cream having been skimmed off, a portion of this milk is warmed. This is done in a circular flat-bottomed brass or tin pan, floated in the boiler, the water of which has been previously heated for that purpose: the size of this pan is about 20 inches in diameter and 8 inches deep. The quantity to be warmed depends upon the state of the weather; for the first two or three months of the season (say March, April, and May) it is not unusual to heat as much as half the evening's milk to a temperature of 100° Fahrenheit, and this heat is rarely exceeded, excepting by those dairymaids who wish to save themselves trouble in the after process. The "cheese-tub," which is similar to a brewing-tub, having been placed in readiness in the dairy, the cold milk is put in and the warm added. Supposing the temperature of the cold milk to be about 50°, and the warm 100°, and they were in equal proportions, the heat after mixing would be 75°, or something less; but in warm weather it will be sufficient if it reaches 70°. I have known instances of good cheese being made in summer without warming any portion of the evening's milk, indeed such now is becoming the general practice. In very warm weather some dairy-maids think it necessary to reduce even the temperature of the morning's milk. The *cream*, which is diluted either in about double its quantity of warm or new milk, or by being exposed to the heat of the boiler in the same way as the milk, is next put in. I have before stated that it is customary to retain a small part of the cream for butter: when this is the case, it is considered best to skim it off the whole surface of the cream before diluting, as by that means the froth and bubbles, which are supposed to be prejudicial to the cheese, will, for the most part, be taken off. This leads me to the conclusion that *fixed air*, if it gets mixed in the curd, has been found to be detrimental. Since warming of fluids has a tendency to dispel this fixed air, it is perhaps worthy of consideration whether it would not be better to warm the *whole* of the evening's milk to the required temperature, rather than heating a *part* of it so high as 100°. The process adopted with the evening's milk, as above described, is generally finished previous to the time of milking in the morning; but if not, the dairy-maid stops and completes it before the *new* milk is brought in from the cows. This new or morning's milk is then added by passing it through the *strainer* placed upon the "cheese-ladder" over the cheese-tub. When the whole is thus collected, some few bubbles are invariably found floating on the surface; these are skimmed off and passed through the sieve to break them.

One of the most important points now to be attended to is the heat of the milk preparatory to coagulation, as the milk, if at a proper temperature, should now

be ready to "set together," that is, to receive the rennet. This heat is rarely tested by any other thermometer than that of the dairymaid's hand; some may, and I have no doubt do, determine it pretty correctly, but cannot always.

The evening's milk in the tub being at or about 75°, as before stated, and the milk which is brought from the cows 90° or 95°, the temperature of the whole is then found to be somewhere between 80° and 85°; and I am of opinion that the heat at which milk ought to be and is commonly coagulated ranges between those two temperatures.

The *rennet*, or *steep* as it is commonly called, is next added. I have already stated in the introduction, that this is an infusion made from the preserved stomach or maw of sucking calves, thence called *maw-skins* or *bag-skins*. A recipe for preserving the skins will be found in the appendix. To define the quantity of rennet sufficient for coagulating a given quantity of milk is a very difficult matter, as the maw-skins vary so much in quality.—When the farmer is laying in a stock for the year, he generally calculates upon a dozen of skins to a ton of cheese, but the skins vary in size (the price when cured is from 6s. to 9s. per dozen). In using them, it is the practice often to cut two skins at once. Three square inches taken from the *bottom* (or strongest part) of one, and one or two inches from the top (or weakest part) of the other, is generally found sufficient for sixty gallons of milk. These two pieces of skin are put into a cup containing about half a pint of lukewarm water, with the addition of a teaspoonful of salt, some part of the day previous to being used. The water thus impregnated with the maw-skin is passed through the sieve into the milk, but the skin itself is generally, though not always, kept out. The rennet cup is well *scalded* before being used again. I have been told that some farmers make a sufficiently large quantity of rennet to last for several weeks, and find to answer better than making a small quantity daily. The question is, will it keep *sweet*?

The coagulation (or "coming") is generally effected in an hour, or an hour and a half. As far as my own observations extend, I am led to think that an average of these two is sufficiently long, if the proper means are used in effecting the formation of the curd: for it is well known that, *ceteris paribus*, the warmer the milk is at the time of setting together, or the stronger the rennet, the sooner will the coagulation take place, but the curd will in consequence be tougher and less in quantity; on the contrary, the cooler the milk, or the weaker the rennet, the longer will the curd be in forming, and the more tender its quality, but its quantity will be greater. By attention to those results the cheesemaker may soon decide when too much or too little rennet has been put in the milk, and correct the quantity the next time. It may be proper here to state, that too much rennet has a tendency to impart an unpleasant flavour, or bitterness, to the cheese.

It may generally be expected that the heat of the curd when formed, will be four or five degrees less than the milk was when set together; and it is desirable, particularly in cool weather, that this difference should not be greater, otherwise the subsequent labour will be more difficult. To determine exactly when the *curd* is in a fit state for what is called "breaking," requires some practical knowledge; with attention this is soon acquired. The point is generally determined by gently pressing the surface of the milk

with the back of the hand, or by lifting up the skinning-dish, beneath which the curd and whey will distinctly appear if the coagulation be complete. Another criterion is the colour of the whey, which should be of a pale green.—*Journal of the Royal Agricultural Society of England.*

ASHES FOR POTATOES.

Messrs. Editors:—In your paper of the 22nd, I see a notice respecting the use of ashes for potatoes, wishing some one that had tried ashes to give the result. I last year had my potatoes planted about the 20th May, and used as a dressing at the time of planting a mixture of ashes, plaster, and salt, the proportions were five bushels ashes, one plaster, and one of salt. At the first hoeing gave them a similar dressing of about a wine glass full at each time; and at digging found little or no rot; the potatoes were put into a large bin in the cellar, and those left, say 70 or 80 bushels, are now as sound to appearance, as those of years previous to the rot. I planted my potatoes three and a half feet one way, and three the other, which gave them plenty of air, and the crop was a good one. I shall try the same dressing this season. I did not try any without last year, but shall this. C. A. D.

Chales-town, N. H., May 23, 1847.

P. S. Since writing the above, a friend advises putting into the hill one pint of unslacked ashes, the result has been good, and the crop nearly sound.—[Boston Cultivator.

RENOVATION OF THE POTATOE.

The following facts in regard to the renovation of the potato, being the mode of culture adopted by Mr. N. S. Smith who obtained premiums for the best seedling potatoes, and the greatest variety of seedlings from the State Agricultural Society—are taken from the January number of the Cultivator communicated by H. A. Parsons.

Mr. Smith began four years since to plant from potato hills, and has every year planted not only the tubers from the improved seed, but the seed from the newly produced tubers. In the potato springing from the improved seed of each successive year, there has been a manifest improvement in size, quality, and quantity; this year 36 sizeable table potatoes were obtained from one hill, or rather from one seed, all attached to one vine. Many of the potatoes growing from seed planted last spring, weighing from five to seven ounces each. The seedlings, though of many varieties, appear fair and healthy, with no signs of the prevailing disease. Mr. Smith the past year planted on two outer sides of his garden, which is of the same soil, exposure, &c., some eight rows of common potatoes purchased in market, consisting of pink-eyes, no-hanocks, or mowers, and flesh coloured; next to these on two sides some twenty rows of different varieties of his improved; and next to these seeds taken from the hills last spring. These had all the same soil, culture and attention. The seeds were first sown in a hot-bed, and afterwards set out in a furrow about two feet apart—one plant making a hill.

In digging, the following was the result:—Of the varieties first named, many were badly diseased; the no-hanocks most, the pink-eyes next, and the flesh coloured last. The no-hanocks, growing by the side of these, showed scarcely anything of the disease, and the seedlings made a hill.

RICE CEMENT.—This is prepared by intimately mixing rice flour with cold water, and gently stirring it over a mild fire. It thus forms a very durable and delicate cement, answering, when made thin, all the purposes of put in a higher degree, for paper and the like, and when made of the consistency of plastic clay, it may be cast in moulds, and the articles when dry have much the appearance of white marble, and will take a high polish. The domestic idols of the Chinese are mostly cast of this material. Any colouring matter may be added at pleasure.

FRENCH ROTAS, OR TWIST.—One quart of lake-warm milk, one tea-spoonful of salt, a large tea-cup full of home-brewed yeast, or half a bushel of attilly yeast, flour enough to make a stiff batter; set it to rise and when very light, work in one egg and two spoonfuls of butter, and knead in flour till stiff enough to roll.

AN EXCELLENT AND CHEAP PLOUGH.—Ompint of rice; twelve apples of good size and sour; pare core and slice them; mix the rice and sliced apples, and put all into a bag and hold them for half an hour. The bag must be large enough to allow the rice to swim, and yet no larger than the rice, when swelled, will fill. Eat with an ounce of sugar; the taste; butter and sugar are excellent.

TO KILL COCHRANES.—A tea-cup full of well-brained plaster of Paris, mixed with double the quantity of oatmeal, to which add a little sugar (the latter is not essential) then strew it on the floor or in the cracks where they frequent. This is simple, and being of no cost, it is worth a trial.—*Gardeners' Chronicle.*

RED SPOTS.—The *Gardeners' Chronicle* recommends for the extraction of those insects that fasten on the leaves of trees, with a quantity of laurel leaves, covered as tight as possible, to prevent the bees, evolved from the leaves, escaping; in a few hours the insects will be destroyed. The branches of the camellias infested with the scale should be rubbed with oil, on the place where the insects abound.

IN ORDER TO STOP THE GUMMY EXUDATION IN CHERRY TREES wash the gummy spots with strong soap, and tie a bandage over them, with soap enclosed. This is stated to be very efficacious.

TO CORRESPONDENTS.

D. K. Brock. Your request will be attended to,—the missing numbers will be sent also.

O. J. H. If the facts are as you say, there is no doubt but your title is good; any lawyer, or indeed any person having much acquaintance with business, will tell you so.

CANADA FARMER.

June 5, 1847.

One of the Editors of this journal will probably call upon several of the principal agriculturists, between this and Montreal, within the next two or three weeks.

AGRICULTURAL CHEMISTRY.

We have for some time had it in our mind to devote some space to the publication of such information upon this important subject as would greatly benefit our readers, and especially the younger portion of them who may not have access to the best books relating to it—by affording them the opportunity of becoming acquainted with those first principles and the more common scientific terms, the knowledge of which is absolutely necessary to the understanding of the writings of all scientific men; at the same time that the labour of selection and explanation would freshen and extend our own knowledge. As remarked by our correspondent. (Whitby Farmer) much of what is written is unintelligible to the majority of readers in consequence of their ignorance of the language used. It would be impossible to write upon scientific subjects (and agriculture is not only a science, but involves the principles of several sciences) in such a manner as to come down to the comprehension of the mass of readers without the most tedious circumlocution, or (as this is a "big word," we may explain its meaning better by) a constant repetition of words and a round-about mode of speaking. Of course there is such a thing as *useless* technicality, but in our selections we have endeavoured to avoid articles of this kind. The most technical, or rather the most difficult to be understood of those we recollect, was published in our second number on "the good and bad points of cattle." It was written by a veterinary surgeon and published in a scientific work. Still with the aid of a common dictionary most of it could be made out. Speaking of the feel of the skin in a good animal, the writer says "its easy residence when traction is made use of" is a "good prognostic." &c. Johnson or Walker will solve the difficulty if there be any in this sentence. "Residence" they inform us means "a stalling or leaping back." "Traction," the "act of drawing," so that the meaning becomes clear even to those who may never have seen these words before, upon consulting a common dictionary. For "prognostic" he might have said "sign," which would have been plainer if not quite as appropriate. "Interstitially posite," "adipose and reticular tissue," "saponaceous feel," &c., may all be understood by reference to the same authorities, one or other of which we hope is in the possession of every family. To express the same meaning, in the commonest language would have required a great number of words, except in the last example, which is an instance of *useless* obscurity. *Soapy* would have done just as well as "saponaceous," for it has the same meaning. There must be an effort made on both sides; the writer must study plainness and simplicity, and the reader must strive to comprehend without the necessity of a constant explanation of the meaning of words.

But in a science like that of chemistry *terms of art* are absolutely necessary. When we speak of "ammonia," we might say "hartshorn," and perhaps be a little better understood, because this is the popular name by which this substance is known in one of its forms. We should however, to convey our meaning correctly, be obliged to use several other words, for hartshorn contains but 32 per cent. of ammonia, united with other substances. Ammonia in its pure state is a gas, of great importance to the tiller of the soil; it

is produced in the fermentation of animal matter, and its smell may be detected in dung-hills and cess-pools. It is now well established that the fertility of animal or barn-yard manures depends in a great measure on the presence of this substance. How important then to understand its nature, and the mode of making and preserving it! But chemistry teaches us that even this volatile gas, is composed of two other simple gases; viz., nitrogen one part, and hydrogen three parts. In speaking of these substances we are driven to use their chemical names, for they have no others. And the only way we can get over the difficulty is to explain them by their properties and peculiarities every time we mention them. Thus if we are speaking of the components of the atmosphere or air, we say in 100 parts there are 79 of nitrogen, an elementary gas, colourless, inodorous, or without smell, inactive, of nearly the same weight as air, incapable of sustaining life or flame, &c., &c., and 20 parts of oxygen, which in its simple form is also a gas, colourless, tasteless, and inodorous; it is electro-negative, that is, when those substances with which it is united are electrically decomposed (separated into their elements) it always appears at the positive surface (but this requires a knowledge of the nature of electricity to be understood). It is heavier than atmospheric air, it is the most powerful supporter of combustion or flame, and of life, &c., &c. Does not the reader see that it would be absurd and impossible to go through such a lecture every time a chemical term is used? After it was explained once, the repetition would become intolerable to those who remembered, and understood it. Now, we shall devote at least a column to the explanation of the elementary principles and terms of art, of those sciences more immediately connected with agriculture, and we shall begin with Chemistry, adding such observations to our selections from the most approved authors, as from time to time shall appear necessary. We hope our young readers especially, will go with us through these interesting inquiries and they will assuredly become both wiser, richer, and better in consequence.

HAY-MAKING.

The season for making hay is rapidly approaching. The farmer should, therefore, look to his implements and have them in order. Much time may be saved as well as money, by paying early attention to these things. On our first page will be found a cut and description of a revolving horse rake, which we think, will be found less complicated and in every respect superior to those in common use. Any man of ordinary ingenuity may construct one; those, therefore, who may approve of the plan, will have time to prepare for testing its usefulness where their land will permit it.

There has been, and is still considerable difference of opinion among good farmers as to the best mode of making hay. One method, and it is the most common, is to dry it thoroughly in the swath, by turning and spreading during the day. Towards evening it is collected into small cocks, or raked into wind-rows. Next day it is spread again, and in the afternoon put up into larger cocks. On the third or fourth day it is taken to the stack or mow. No salt is used. By this mode the grass is thoroughly dried, but the process is tedious, and in the case of clover, much of its virtue is lost. Another plan which has many intelligent advocates, is to allow the swath to be turned and withered, putting it up into small cocks of about 200 lbs. by noon, when cut before breakfast. In this situation a sweating or fermentation takes place, attended by heat, and an exudation of moisture, which tends to cure the hay very fast. The forenoon of the next day the cocks should be examined, and if the heat is abated they may be shook up a little and left for a short time, and then carried to the barn. In mowing it away, salt should be sprinkled over it at the rate of two or three pecks to the ton. It will heat again slightly, but if not too green, cures

well, and makes the best of hay. The practice is adopted by some, of putting it away with alternate layers of straw, especially when composed of clover; heat is thus avoided, and the straw by imbibing the juices is enriched as food; less salt is required in this case.

Judge Buel, the able editor of the Albany Cultivator, from its commencement until his death, always recommended and practiced this plan. He says—

Philosophy teaches, and many years experience has confirmed us in the correctness of her teachings, that not only clover, but all hay in which clover or any of the succulent grasses, are constituents should be cured in small grass cocks, not rolled, but formed of layers with the fork. The objections to the old mode of curing wholly in the sun, are, in the first place, that the leaves and finer parts of grasses, dry, crumble and are lost, ere the stems and succulent portions are fit to carry to the barn. In the second place, that an intense hot sun is hurtful to the quality of the hay, that cured in the shade being always the most fragrant and nutritious. Third—it is liable to be seriously injured by the dew, sudden showers, or continued rains.

The practice of the best English, Flemish, and French farmers, says Deane, is to expose their hay as little as possible to the sun. It is carried in dry, but it preserves its green colour; and you see hay two or three years old in their market, of so bright and green colour, that we should entirely conceive it to be cured; yet they are in the practice of preserving it for years, and value it more for its age. The cock excludes it from the sun and preserves its greenness; and if a slight fermentation takes place there, the hay seldom heats, and never spoils, in the mow or stack. It is the best mode to make good hay. Let those who think otherwise try it.

For the Canada Farmer.

GENTLEMEN.—Upon seeing the Prospectus of your paper, I made up my mind to become a subscriber. It struck me to be just the thing that was wanted. I knew there were hundreds of farmers raising families of children, who cared nothing for the political papers, and therefore did not take them; and as, until yours was started, there were no others published in this country containing general information, these children stood a fair chance of coming up just as ignorant as their parents. It therefore appeared to me that a good farmer's paper, containing instruction upon agriculture of a useful kind, and at the same time giving news and matters of general interest; in fact, just such a paper as yours is, would meet with more encouragement (for it would be more worthy of it,) and do far more good than the whole host of political newspapers that are now floating over the country. I may put the religious papers, as they are called, in the same category, for they are started with the same party object, and are just as bitter and acrimonious in their language, and kindle so much strife and "brotherly hatred," and are just as neglectful of the real interests of the country (perhaps more so) as their worthy competitors.

Political papers may do well enough for those that like them; but as for myself I am quite tired of the continual wrangle about "party" and "office." I want to see the party that will do something. This eternal talk has sickened my stomach. But I am afraid you will think I am writing politics. Never mind—I have my own political opinions, and newspapers shall not change them. They are made up from facts, or acts, just as you like, and it will require the same kind of things to produce new ones; mere declamation, assertion, or abuse will not do. A newspaper in a family, even a political or religious one, is better than nothing. It contains many things pleasing to children, and gives them a taste for what is solid and useful. I am myself an instance of their benefit. My father took a paper, and though I hated the sight of a book, yet by reading the newspaper sometimes aloud for others, I gradually acquired a relish for the thing, and can now boast a considerable acquaintance with books and with the world, for use in my station, which I otherwise should have been ignorant of to this day.

I trust, therefore, as your journal is what every farmer wants (and if conducted as you have begun will no doubt be appreciated and supported), that you will be induced to continue it; I should be very sorry to see it stop, for I am afraid it would be a long time before we should have another like it. You may lose the first year, because many are waiting to see it established, but you will get a good list next year.

I observe you have run foul of Mr. Edmundson. Let "him alone." Everybody, by this time, knows how much he knows. His "pond has run out." His "sugar" notions, like many others he keeps harping upon, will miscel no cue, therefore you are only wasting your ink and paper in exposing their absurdities. I take his paper for the extracts it contains, and, as the cost is not great, shall continue to take it. It must be admitted that he deserves a good deal of credit for his perseverance, even though his "zeal" be without knowledge.

Print me to make one more suggestion. I have read several agricultural books, and some scientific ones, yet I find great difficulty in understanding them, as it appears to me, useless technicalities which I could not use of our best essays and writings. I am sure that about half of some of the articles published in your paper is unintelligible to the majority of your readers. Now, is it not possible to make your paper more useful, by collecting and publishing, say a column or so at a time, explanations of these words of art, and especially of chemical to us and a distance? This science has done more for agriculture, and will do more than all others put together; and there is none, the very words of which are such complete *Greek* to the generality of readers. Words of art are necessary to the explanation of a science; but then it is equally necessary that they should be understood. I am satisfied such assistance will not come amiss, even to those who have witnessed operations in the laboratory.

Yours respectfully,
A WHITBY FARMER.

June 1st, 1847.

We thank our friend for his good opinion and friendly suggestions. We considered well the plan of our journal before we issued it, and have no doubt of its adaptation to the wants of the agricultural community. Of our ability to conduct it upon this plan it is perhaps not becoming or necessary for us to speak; we leave the determination of that question to our readers. But however much good such a journal may be capable of effecting, our friends must recollect that two or three individuals cannot bear the expense of its publication, unless properly supported by the public. Every man who wishes to see Canadian enterprise develop itself, and intelligence and improvement diffused among the young and old of our agricultural population, must assist with the means which will accomplish, and which in other countries have accomplished, these results. Every subscriber to the "Canada Farmer" could, if he would, get one of his neighbours to subscribe; this would double our subscription, and very nearly pay the expenses of the first volume. It would also remove all doubt from our minds as to the propriety (peculiarly speaking) of continuing the publication. We made some objection of this kind in a former number, and although plenty of time has elapsed we are not aware that we have received one subscriber by the suggestion. This is not very encouraging. We have not personally asked a single individual to become a subscriber, nor do we intend to. We devote all the time we can spare, and thus far, it has required much more than we ought to spare from other duties, in reading, preparing and writing matter for the paper. Whatever else is necessary must be done by others. The enterprise is now fairly before the public, and if they wish it success they must come forward in its support. There are some choice spirits who have extended to us their sympathy and co-operation in a tangible shape. As Canadians we honour them, and only wish that our country could boast of possessing greater numbers of the same genus.

As it regards Mr. Edmundson, we shall remember our friend's advice. We shall avoid every thing like personal controversy except in self-defence. When questions of great public importance are being discussed we shall treat the *Cultivator* just as we would any other cotemporary. And if we have the misfortune to differ from him in his statements and opinions, we trust he will not lose his temper because he is worsted in the argument. Our correspondent's last suggestion is referred to in another place. We hope to hear from a *Whitby Farmer* again.

From the American Agriculturist.
ECONOMY OF LABOUR - SAVING UTENSILS IN A KITCHEN, OR ON A FARM.

A little reflection will show, that to save time is a great gain, while a liberal, though economical expenditure of money is equally so. Labour-saving machines in a farm kitchen are, therefore, of the utmost importance, as they not only save time, but strength. For instance, if a farmer expends a few dollars in the purchase of a churn so constructed that it will bring butter in five, ten, or twenty minutes, and afterwards work the butter fit for printing, and this only by turning the handle, (and there are such churns now in use,) he will soon perceive that he has gained more than at first he could think possible. If he adds to this, pans for hot water, in which the milk pans can be placed to prevent the new milk from cooling too rapidly, he will find on churning day, that he has gained one fifth more butter than by the ordinary method.

If such liberal conveniences are allowed the farmers' wife and daughters, as the modern sausage-chopper—that noiseless friend to the farmer's wife—that will silently do in two hours what it would take a man a whole day to accomplish by his single arm; or if a wood-shed in which the kitchen shall open, where a space can be partitioned off for barrels and boxes that are to be receptacles for all sorts of things that the women should have in use close to the scene of their labours, and to receive trash that otherwise would be thrown out, littering the yard, and giving an air of unthrift that is always disgusting, and if saved in barrels and carefully collected on the compost heap, will serve as manure for the garden or farm, of the best quality, the farmer himself will find in a short time that in saving his strength, time and health, he has gained at the end of the year, at least, the price of the labour-saving machines, and the following year there will be a clear profit of money as well as time, that can be spent more profitably in lighter and equally useful occupations. If in the above mentioned house a row of barrels be placed close to the kitchen door, one for ready-made soap, one for soap-fat—into which is previously placed twenty-five pounds of potash—and two barrels of water, one for pig-slop, another for bones and all the worthless scraps and sweepings of the house, and another for chicken-feed, the following results will take place:

The soap being close at hand, can be used when it is wanted, and there will be no excuse for things not being kept perfectly clean. If the barrel of potash and water be kept close at hand, ten times as much soap-fat will be gathered and saved, than if the barrel were not there; for it will take no more time to throw it there than into the pig's barrel, or to the dog. The potash will prevent the fat from becoming mouldy, or filled with skippers, which it is apt to do when collected in the usual way. The soap will make itself, if stirred once or twice a week. Potash, instead of lye, is most economical, as it is more in its results; and the ashes are more valuable on a manure heap or pasture land than the soap is worth. The pig-slop will be under the mistress's eye, and ingredients neither too good nor too bad will be put in. The bones and scraps, now so highly prized as manure, may all be saved; and last, not least, dirt is not made, and the time and strength that would otherwise be taken in cleaning and scouring is saved for better purposes; and the chickens may be regularly fed without waste of time. On a farm, as in a bee-hive, all should be workers, and the drones sent off. The women as well as the men, must and should work; but all will find that the best economy is, to save, whether it be in time, or money, or strength, though all should be diligently, carefully, and liberally used, if the farmer wishes to thrive. If from a careful management of time you save one hour a day, either from unnecessary sleep, pleasure or ignorance, you will gain, in five years, seventy-five days and two hours, for profitable improvement of mind or means.

DAIRY UTENSILS.

All dairy utensils should be scalded, rinsed and dried every time they are used. Glazed pottery is not considered desirable for milk or cream, as the acid contained in them acts upon the glazing (which is generally an oxide of lead,) and converts it into an active poison. Vessels made of wood are preferred by many to any others, for this purpose; although they are liable to become tainted with the acidity of the milk, in which case they can only be thoroughly cleansed by boiling; and when this fails, a little saleratus added to the boiling water will effectually neutralize the acid. The vessels must afterwards be immersed, for two or three days, in water, which should occasionally be changed. Milk vessels may be made of maple, white ash, hickory, or white pine.

TO DESTROY MILDEW.

Mr. Haggerston, who obtained, a few years ago, a premium from the Massachusetts Horticultural Society, for the discovery of a mode of destroying the rose-slug, says, that a weak solution of whale oil soap, in the proportion of two pounds of soap to about fifteen gallons of water, or weaker, will check and entirely destroy the mildew on the gooseberry, peach, grape vine, &c.

CATECHISM OF AGRICULTURAL CHEMISTRY AND GEOLOGY.

We commence the publication of such parts of the "Catechism of Agricultural Chemistry and Geology" as appear adapted to those readers who cannot have the benefit of what is called "ocular demonstration," i. e. witnessing the trial of the experiment which proves and explains the doctrines of the text. This admirable work, which has passed through eight or nine editions at home, and has been republished in the United States, is written by Jns. F. W. Johnston, M. A., F. R. S. L. & E.; Honorary member of the Royal Agricultural Society of England, and author of "Lectures on Agricultural Chemistry and Geology." Professor Silliman, of Yale College, says of it: "Like every production of his pen, it is characterized by a sound practical good sense, which adds double value to his scientific labours, rendering them available to the very class for whom they are more especially designed—practical farmers." And, he adds that this work is "the best synopsis yet made of the valuable facts and principles which have been established in the important science of agriculture." Chemistry is preeminently a progressive science. New facts are discovered, new affinities traced and new principles deduced almost every day. This little work brings down the information upon this most interesting subject to the latest period.

Q. What is agriculture?
A. Agriculture is the art of cultivating the soil.
Q. What is the object of the farmer in cultivating the soil?
A. The object of the farmer in cultivating the soil is, to raise the largest crops at the smallest cost, and with the least injury to the land.
Q. What ought the farmer especially to know, in order that he may attain this object?
A. The farmer ought especially to know the nature of the crops he raises, of the land on which they grow, and of the manures which he applies to the land.

I.—Of the Nature of the Crop he Raises.

Q. Of what parts do all vegetable substances consist?
A. All vegetable substances consist of two parts, one which burns away in the fire, called the organic part, and one which does not burn away, called the inorganic part.
Q. Which of these two parts is the greater in quality?
A. In all vegetable substances, the organic part is very much the greater. It forms from 90 to 99 out of every 100 lbs. of their weight.
Q. Of what elementary bodies does the organic part of plants consist?
A. The organic part of plants consists of four elementary bodies, known by the names of carbon, hydrogen, oxygen, and nitrogen.

Q. What is carbon?
A. Carbon is a solid substance, usually of black colour, which has no taste or smell, and burns more or less readily in the fire. Wood-charcoal, lamp-black, cake, black-lead, and the diamond, are varieties of carbon.

Q. What is hydrogen?
A. Hydrogen is a kind of air or gas which burns in the air as coal gas does, but in which a candle will not burn, nor an animal live, and which, after being mixed with common air, explodes when it is brought near the flame of a candle. It is also the lightest of all known substances.

Q. What is oxygen?
A. Oxygen is also a kind of air in which a candle burns with great brilliancy, in which animals also can live and which is heavier than hydrogen or common air. It forms one-fifth of the bulk of the air we breathe.

Q. What is nitrogen?
A. Nitrogen is also a kind of air differing from both the other two. Like hydrogen, a taper will not burn nor will an animal live in it, but unlike hydrogen, it will itself not burn, and therefore does not take fire when brought near the flame

of a candle. It is a little lighter than atmospheric air, of which it forms four-fifths of the bulk.

Q. Do all vegetable substances contain these four elementary bodies?
A. No the greater number contains only three viz.: carbon, hydrogen, and oxygen.

Q. Name some of the more common substances which contain only these three?
A. Starch, gum, sugar, the fibre of wood, oils, and fats, contain only these three elements.

Q. Of what substances does the inorganic part of the plant consist?
A. The inorganic part of plants contains from eight to ten different substances, namely: potash, soda, lime, magnesia, oxide of iron, oxide of manganese, silica, chlorine, sulphuric acid, or oil of vitriol, and phosphoric acid.

Q. What is potash?
A. The common potash of the shops is a white powder, which has a peculiar taste called an *alkaline* taste, and which becomes moist, and at last runs to a liquid when exposed for a length of time to the air. It is obtained by washing wood ashes (the ashes left by wood when it is burned,) with water and afterwards boiling the liquid to dryness.

Q. What is soda?
A. The common soda of the shops is a glassy or crystallized substance, which has also an alkaline taste, but which unlike potash, becomes dry and powdery by being exposed to the air. It is manufactured from sea salt.

Q. What is lime?
A. Lime or quick-lime is a white earth substance which is obtained by burning common limestone in the lime-kiln. It has a slightly burning taste, and becomes hot and *slakes* when water is poured upon it.

Q. What is magnesia?
A. Magnesia is a white powder sold in the shops under the name of calcined magnesia. It has scarcely any taste, and is extracted from sea water and from some kinds of limestone rock called *Magnesian* limestones.

Q. What is iron?
A. Iron is a hard bluish gray metal, which is manufactured in large quantities in our iron-works, and is used for a great variety of useful purposes.

Q. What is oxide of iron?
A. When polished iron is exposed to the air it gradually becomes covered with rust. This rust consists of the metal iron, and of the gas oxygen which the iron has attracted from the air, and hence it is called an *oxide* of iron.

Q. What is oxide of manganese?
A. Oxide of manganese is a substance very much like oxide of iron which occurs in soils and plants, usually in very small quantity.

Q. What is silica?
A. Silica is the name given by chemists to the substance of flint, of rock-crystal, and of sand-stones.

Q. What is chlorine?
A. Chlorine is a kind of air which has a greenish-yellow colour, and a strong suffocating smell [It is two and a half times heavier than common air.] A taper burns in it with a dull smoky flame. It exists in common salt in large quantity.

Q. What is sulphuric acid or oil of vitriol?
A. Sulphuric acid or oil of vitriol is a very sour burning, oily liquid, which is manufactured from burning sulphur, (brimstone.) It exists in common gypsum, in alum, and in Glauber and Epsom salts.

Q. What is phosphoric acid?
A. Phosphoric acid is also a very sour substance, which is formed by burning phosphorus in the air. It exists in large quantity in the bones of animals.

* This gas may be made in the following manner:—Take a common tumbler, put into it some small pieces of zinc or iron filings, and pour over them a small quantity of sulphuric acid, (oil of vitriol), diluted (mixed) with twice its bulk of water, and cover the glass for a few minutes. Light a straw, or piece of paper, put the lighted end into the glass and an explosion will take place. No danger need be apprehended, as the explosion is caused by a sudden contraction, or lessening of the volume, and not by an expansion, as in the case of gunpowder, which is a solid, occupying a small space, by ignition or burning, suddenly converted into a fluid, or gas, requiring a large space. By putting the same ingredients into a phial, the cork of which should have a pipe stem inserted in it, you may see the gas burn by applying a candle to the pipe stem as the gas issues through it. This being lighter than air, is the substance with which balloons are filled. [Ed. C. F.]

† The remarkable fact (to those unacquainted with chemistry) is shown by this gas, that substances innocuous and often deadly in their single state, by chemical union become totally changed in their nature, and in this case, wholesome and pleasant to the taste. 100 lbs. of common salt contains 60 lbs. of chlorine.—[Ed. C. F.]

Civil and Social Department.

THE ST. LAWRENCE—CARRYING TRADE OF THE WEST.

The carrying trade of the Western States is a prize worth contending for. The Province is some three millions in debt, a great portion of which was contracted for the purpose of constructing our public works. To make these works available in contributing to the revenue with a view of extinguishing the debt, is a line of duty so broadly marked out by common sense and public interest, that it is impossible to mistake it. An official notice has been issued from the Inspector-General's office, permitting American grain to pass through Canada to the ocean, on the importer giving a bond to export it within six months. The object of requiring grain thus imported to be exported in the time specified, is evidently to prevent its coming into competition with our own grain in our markets. This attempt to prevent a competition, which, as it will be easy to show, can have no effect on our markets, betrays a non-acquaintance with a fundamental principle of political economy. If all the grain grown in the United States were offered for sale in our markets, no effect would be produced upon prices, so long as we produce the same articles in excess, and England is the common market to which both Canada and the United States export their surplus products; provided the products of each country be received in England on the same terms. This may appear a startling proposition, but a little consideration will show that it is incontrovertible. The general harvest of the world will determine the amount of supply, and the state of the harvest in England will fix the nature of the demand. A generally deficient harvest will be followed by high prices, and an unusually abundant harvest by low prices. In either case, Canada and the United States having a surplus to export, and England being the common market, it can make no difference whether the surplus grain of the United States pass through Canada on its way to the English market or not; nor can its sale in our markets affect prices here, because our merchants would merely be buying for the *English Market*, by which the prices here must be regulated. American grain could not be bought here at a lower price than the New York merchant would give for it; for if higher prices can be obtained in New York than in Canada, the grain of the Western States will find its way to New York; and if it be found that Canada possesses advantages with respect to the carrying trade over New York or Boston, the merchants of the latter cities will take up their residence here, and American grain will pass through Canadian channels in its way to the ocean to be shipped for the English market. If there is free trade in grain, Canada must compete with the United States; and so far as prices are concerned, it is not of the slightest consequence whether that competition be carried on in New York, or Boston, in Canada or Liverpool. But as regards the carrying trade, it is of the greatest importance that the competition should be carried on in Canada. We do not assert that Canada possesses advantages that will secure for her this trade. This is a question which time will soon decide. One thing is clear that tolls on our canals must be kept down at a low point. Some idea of the value of the *future* carrying trade of the Western States may be formed, when we recollect that six States, Indiana, Ohio, Illinois, Michigan, Wisconsin and Iowa contain an area of 250,000 sq. miles—about six times as large as the whole of England; and that their products are every year vastly increasing. The trade of Western New York alone increased from 304,025 tons (sent on the canal) in 1844, to 491,791 tons in 1845.

At a future time we may take occasion to compare the cost of carrying flour and grain by the Erie Canal, the Saint Lawrence, and the Ogdensburg & Boston Railroad, building. We do not intend to step out of our way

to combat the strange arguments which have appeared in a contemporary journal, in reference to the possible effect that may be produced upon the interests of Canada by opening our canals and the Saint Lawrence as a channel for American grain to pass to the ocean. To say that an arrangement so evidently advantageous to us will derange the currency of the country, is merely to say that the currency is not adapted to the wants of the country. If this be proved, let the question of currency be discussed on its own merits, and without detriment to the trade of the country. But the assertion that the interests of the country are suffering by our carrying on a trade in American grain, on opening our channels of commerce to the passage of American produce, is so manifestly at variance with common sense, that we hope at least never again to see it in print.

PROFITS OF AMERICAN MANUFACTURES.

In this utilitarian age, respecting everything that can be measured by a money standard, the universal inquiry is, when the question whether we shall manufacture or import it arises, will the manufacture of it by ourselves pay? When new enterprises are established on such a scale as to change the character of the commerce of a whole country, the question becomes emphatically a national one. Especially is this true of manufactures. The primary question, then, which arises in discussing the propriety of establishing domestic manufactures, is as to their capability of adding to the national wealth. Under a false system of commercial regulations, one part of the community may flourish on the ruin of the other part; but under a sound system, the interests of individuals, classes, and communities are identical. The manufactures of Lowell, Massachusetts, have been carried on since 1822 with more or less of profit to the companies engaged in them. Whether they have been equally profitable to the American Commonwealth is another and a very important question. The following statement exhibits the comparative profits of the principal manufacturing companies of New England for the last five years. It is to be remarked, however, that exclusive of these dividends, there are many instances in which a portion of the profits has been expended in erecting new buildings, the purchase of new shares, &c. :

Lowell Corporations	1843	1844	1845	1846	1847.
Appleton.....	6	11	12	12	per cent
Hamilton.....	6	13	14	10	
Lowell.....	—	7	14	14	4
Middlesex.....	4	10	14	15	8
			20		
Merrimack....	16	20		16	
Tremont.....	6	16	18	10	4
Suffolk.....	6	16	20	18	5
Lawrence.....	7	15	14	15	6
Boott.....	5	11	18	16	5
Massachusetts.	5	11	18	20	15
Hampshire Co.					
Cabot.....	11	10	20	16	
Chickopee....	0	3	12	19	
Dwight.....	11	8	20	18	
Perkins.....	9	10	20	14	
Palmer.....	9	16	25	21	5
Thorndike....	5	14	15	15	4
Os.....	10	14	12	8	
New Hampshire.					
Nashua.....	0	11	18	20	8
Jackson.....	3	15	18	20	8
Great Falls..	3	17	20	22	5
Cocheo.....	3	6	6	6	3
Stark.....	6	16	18	20	8
			10		
Amoskeag....	7	9	20		5
			25		
Maine.					
Lacoma.....	00	00	00	3	3
York.....	0	17	18	20	5
		10			

The declaring of dividends for 1847, before the Month of May, we confess we do not understand, except, indeed, they should have been declared quarterly. Only some, however, for this year, are stated. The annual profits on the capital stock of these companies have during these five years, ranged from three to twenty-five per cent.

Our proximity to the United States favours the idea that profits equally large might be made in Canada. But it must not be forgotten that our circumstances are totally dissimilar to those under which the American manu-

facturers made their profits. These manufacturing establishments were established and fostered under the protective system, the justice and soundness of which all nations have begun to question, and which some have already abandoned. It is a fact susceptible of the clearest demonstration that the manufacture of many articles protected by high import duties, has been a national loss to the United States, though it may have been in some instances a gain to individuals. For example, there are twenty millions of people in the United States, who have to purchase articles of cutlery which the manufacturer in Sheffield can produce fifty per cent lower than the New England manufacturer. It is manifestly the advantage of these twenty millions to purchase from the Sheffield manufacturer. It might benefit some few dozen New England manufacturers of cutlery to secure a monopoly of the business, and drive their English competitors out of the market, by the American Senate placing an import duty of 100 per cent on English cutlery. The American cutlers would gain only the cost of transit from Europe to New York, but the American people would lose 50 per cent. Will it be believed that on some articles of English cutlery 100 per cent import duty was at one time actually placed by the Americans! It must be understood, however, that there are other articles which the Americans are not only capable of manufacturing, without the shield of a protective duty, but which they can take to England and undersell the English manufacturer in his home market. For the manufacture of these articles the American requires no protection; they protect themselves. Every article which cannot be produced cheaper by ourselves than we can purchase it from England or elsewhere, it is clearly our duty to import; and on the other hand, every article which we can manufacture cheaper than we can purchase elsewhere, it is our interest to manufacture.

GREAT SUSPENSION BRIDGE NEAR THE FALLS OF NIAGARA.

The march of modern science almost threatens to invade the province of omnipotence. Men separated by hundreds of miles are, by the use of lightning, within talking distance. The great Niagara, of whose majestic grandeur and fearful sublimity, the remotest corners of the earth have heard, is now about to become a play thing in the hands of man! The great river is to be spanned by an iron bridge. On the practicability of the proposed structure, all doubts are now removed. The Engineer has pronounced with confidence upon its safety. The bridge is to be capable of sustaining five hundred tons. It is expected the work will be completed in eighteen months or two years.

The Mexican Congress has rejected the proffered mediation of England in the war between that country and the United States, by a vote of 44 to 33. A new Mexican President was to be elected on the 15th of May. Santa Anna is spoken of as a candidate. No fortification, except of the most wretched description, of the city of Mexico was being made, and nine-tenths of the citizens are without arms. When the Americans approach the city, the Mexican Congress, with all the archives of the Republic, will move to the city of Morelia. General Scott is marching upon the city of Mexico. He has issued a proclamation to the Mexicans, in which he states that the Americans can bring against them an army of 100,000 men. He says:

"I will not believe that the Mexicans of the present day are wanting in courage to confess errors which do not dishonour them, and to adopt a system of true liberty, of peace and union with their neighbours of the North; neither will I believe that they are ignorant of the falsity of the calumnies of the press, intended to excite to hostility."

SUPPOSED POPULATION OF THE WORLD.

Nine hundred and sixty millions of human beings are supposed to be upon the earth; of which Europe is said to contain one hundred and fifty-three millions; Africa, one hundred and

fifty-six millions; Asia, five hundred millions; America, one hundred and fifty millions; and the Islands in the Pacific, seven millions. If divided into thirty equal parts, five of them will be Christians, six Mohammedans, one part Jews, and eighteen Pagans. Christians are numerous in Europe and America; some in the south of Asia, Africa, and in the interior of America, some in Asia, and a small number in the north of Europe.

ADVERTISEMENT OF A LOST DAY.

BY MISS L. H. SIGOURNEY.

Lost! lost! lost!
A gem of countless price,
Cut from the living rock
And graven in Paradise.
Set round with three times eight
Large diamonds clear and bright,
And each with sixty smaller ones,
All changeable as the light.

Lost—where the thoughtless throng
In fashion's mazes wind,
Where trilled folly's song,
Leaving a sting behind;
Yet to my hand 'twas given
A golden harp to buy,
Such as the white-robed choir always
To deathless minstrelsy.

Lost! lost! lost!
I feel all search is vain;
That gem of countless cost
Can ne'er be mine again;
I offer no reward,
For till the heart-strings sever
I know that heaven intrusted gift
Is left away forever.

But when the sea and land
Like burning seroll have fled,
I'll see it in His hand
Who judgeth quick and dead,
And I won of scathe and loss
That man can ne'er repair,
The dread enquiry meets my soul,
What shall it answer there?

Literary Department.

THE WHOLE CASE OF THE NAVIGATION LAWS.

We copy the following article from the *London Economist*. The importance of the subject, and the triumphant manner in which it is treated, relieve us from making any apology as to the length of the article, which we have, indeed, abbreviated by striking out the introductory matter:—

First then, let us examine what has already been done to remove the restriction which the original framers and supporters of the Navigation Laws conceived to be needful to protect our shipping, and what results have followed therefrom. The various attempts in ancient times to secure to this country the largest share of the carrying trade by legislative enactments and restrictions, were embodied in that famous law, called the Navigation Act, which was passed in the 12th of Charles the Second, and which remained in operation without change or modification, until the force of events rendered a partial relinquishment of its principles absolutely needful in 1815.

By that law it was enacted, that no goods the produce of Asia, Africa, or America should be imported into the United Kingdom except in British ships. With regard to these three important quarters of the globe, an absolute monopoly was established in favour of British ships. And it was further provided, that any goods imported from the continent of Europe in foreign ships should be charged with additional rates of duties. With regard, therefore, to three quarters of the globe, British shipping had an absolute monopoly; and with regard to the remaining quarter, it was protected by high discriminating duties. So far, however, as our intercourse with Asia, Africa, and America, was concerned, the contemplated restrictions were in a great measure a dead letter down to the beginning of the present century, inasmuch as the whole of our trade, at that time, was confined to British possessions.—For example—as long as the United States remained a dependency on this country, nearly the whole of the North American continent stood to us in the relation of colonies, to which the restrictions did not apply. Then, with respect to South America, the greatest portion of it formed dependencies of Spain and Portugal, which dependencies possessed no shipping of their own, and the trade of which was regulated by the parent states in Europe. Again with respect to our trade with Asia and Africa,—the whole of it was carried on either with our own dependencies, or with countries who, having no shipping of their own, never felt the privileges enacted in favour of British ships any grievance or inconvenience. Our trade to those portions of the globe consisted of that carried on with our dependencies at the Cape of

Good Hope, the East Indies, and to China. The two former having all the privileges of colonial possessions, were excluded from the restrictions of the Navigation Laws; and the latter having no shipping with which our laws interfered, experienced no inconvenience from them. As far as regarded all these countries and their trade with us, our Navigation Laws were a dead letter. Vessels built in America or the East Indies had all the privileges of those built in England. China and other foreign countries with which we traded out of Europe, having no ships of their own with which we interfered, were unconscious of the nominal disadvantage under which our laws placed them. In short, our trade with those countries would have gone on precisely as it did, irrespective of any law which contemplated an interference with the ships of those countries.

The first circumstance which really brought the provisions of the Navigation Act, as far as it related to the countries out of Europe, into practical operation, was the erection of the United States into an independent country. No longer possessing the privileges of colonies, their ships were debarred from bringing cargoes of their own produce to this country; and the consequence was, that those American ships which traded direct to Great Britain were obliged to come in ballast, in order to carry a cargo back. After long and repeated attempts on the part of the United States, to induce the English Government to enter into an arrangement, by which so inconvenient and so wasteful a system might be obviated; and desiring of success, they had recourse to a system of retaliation, and enacted against British ships a law corresponding to our law against their ships. They prohibited the importation of British Goods in any but American ships. Thus the trade of these two large and important countries was reduced to this absurd and anomalous predicament—English ships sailed to America in ballast in order to bring home American produce, and American ships sailed to England in ballast in order to carry home British manufactures. Just double the quantity of ships necessary to conduct the commerce of the two countries were thus rendered needless; and, as the freights obtained for the voyage one way must have been sufficient to defray the cost of navigating the ships both ways, the transport of the produce of each country must have cost just double that it otherwise would have done. American cotton and tobacco were brought to England at double the cost of freight, which additional cost injured the consumer in England, by adding to the price, and injured the producer in America, by limiting the consumption. British manufactures were carried to America at double the necessary cost, which injured the consumers there by adding to their price, and also injured the producers here by limiting their consumption. And both countries were deeply injured by a wasteful and useless application of much capital, which otherwise might have been applied to other national and profitable objects—to the construction of canals or roads, the improvement of the soil, or the extension of manufactures; all of which themselves would have led to an extended demand for shipping in a legitimate and useful way. Absurd and ridiculous as this position may appear for two great countries to be placed in, yet we shall find that the whole tendency and spirit of the Navigation Laws, even as now existing, has a tendency to produce the same anomaly, when they have any effect at all. These laws, in fact, in their practical effect, are precisely the same as if two rival railway companies, traversing the same county, with lines running close to and parallel with each other, had the power, and exercised it, of confining each other to conveying passengers and goods in one direction, the carriages returning empty: as if two railways were established between London and Edinburgh—the one belonging to the former city, and the other to the latter; as if London were to prevent the arrival of passengers and goods in any other but the London carriages, and as if Edinburgh were to prevent the arrival of passengers and goods in any other but the Edinburgh carriages—the London carriages going to Edinburgh empty, in order to bring back goods and passengers, and the Edinburgh carriages going to London empty in order to return full. Two lines of railway would be required in place of one, just double the quantity of carriages would be necessary, and the fares would require to be double, in order to recompense for the traffic one way, under circumstances which involved the necessary cost of carrying it both ways. And again, double the quantity of capital would be brought into requisition, for a given object, which might otherwise have been profitably engaged in constructing other railways, or for any other purpose. Such, however, is the

spirit, and such is the effect—as far as they have effect at all—of our much praised Navigation Laws.

The absurdity and inconvenience which arose under this retaliatory system in trade between the United States and Great Britain led to the treaty of 1815 between the two countries, by which each conceded to the other, in their direct communication with each other, the privileges enjoyed by their own ships. American produce could thenceforth be imported into Great Britain direct from America, by American ships on the same terms as in British ships, and British manufactures could be imported into America, direct from Great Britain, in British ships, on the same terms as in American ships. It was thus that circumstances forced the first change in the Navigation Act.

But the same principle which applied to our American trade, in the absolute exclusion of their produce, except in British ships, applied practically to our trade with the continent. It is true that we did not absolutely prohibit European produce in European ships, but we placed discriminating duties on the ships themselves, and upon the goods imported in them, which led in a great measure to the same inconvenience. Continental ships found that they were either obliged to come to this country in ballast, or, if not, at a great disadvantage of duties, in order to carry back cargoes from this country. These countries seeing the process by which America had compelled Great Britain into the recognition of a just and reciprocal system in 1815, and feeling the growing inconvenience of the existing system began a few years afterwards to adopt a similar retaliatory course, after having made vain attempts to have similar privileges recognised without doing so. In 1823, Prussia imposed upon British ships similar restrictions in our trade with that country, that we imposed upon Prussian ships entering our ports. It then became obvious to every reflecting man, that we could no longer maintain the Navigation Act. To have negotiated with Prussia, as we had done with America, would have left us with only the same task to perform towards every other country separately. Mr. Huskisson then clearly saw that the case was only to be met safely and wisely by a general law, applicable alike to all countries. The retaliatory acts of Prussia, though based only on the principles which dictated our laws, were the object of much clamour and complaint on the part of the British shipowners of the day, who thus showed how little they approved of a principle adopted by others towards them, which they considered essential for them to adopt towards others. This state of events led the government, in 1823, to propose the Reciprocity Acts of the 4th and 5th of George IV., which authorised the king in Council to repeal all discriminating duties on the ships of such foreign countries entering our ports, as were willing to place our ships in a similar position as their own, in their ports. It was against these acts, dictated by such an obvious principle of fairness, and by such an absolute necessity of events, that the clamour of the British shipowners of the day was so loudly and so incessantly raised. In pursuance of those acts, treaties have been entered into with—

Prussia, Hanover, Denmark, Oldenburg, Mecklenburg, Greece, Bremen, Hamburg, Lubeck, States of La Plata, Columbia, Holland, France, Sweden and Norway, Mexico, Brazil, Austria, Russia, Portugal.

By these treaties it will be observed, however, that the privileges given to each country extend only to direct importations from each country. This, however, was the strongest test to which British ships could be exposed, of their power to compete with foreign ships. If American ships could extinguish British ships in any trade, it was in bringing the produce of America to this country—in bringing their own cotton, tobacco, and rice from their own ports. If Prussian ships could successfully compete with British ships in any trade, it was in bringing their own corn and timber from the ports of the Baltic. If the ships of any foreign country had the means to destroy the trade of British ships, it was surely in bringing the produce of their own country from their own ports. Those treaties, therefore, as far as they went, exposed British ships to as much competition as if the privileges had been extended, without any restriction, to the produce of any country brought from any port. All that was left in the shape of restrictions was no real protection, but acted only as wasteful and inconvenient annoyances harrassing to the merchant, and inconvenient to the true interests of the country.

Such, then, are the changes which have been made in the Navigation Act, as first passed, up to this time. Let us shortly inquire what have been

the effects of these changes. The shipowners of the day confidently predicted the rapid decay and ultimate destruction of British shipping. Our navy was to be without men—and our carrying trade was to fall into the hands of strangers. No doubt our shipowners of that day, laboured under many disadvantages; the high duties on hemp, subjected them to dear cordage; the high duties upon foreign timber, in protection of the produce of Canada, subjected them to a high price for the chief material which they used; and our corn and provision laws subjected them to an expensive and costly mode of victualling. These were great disadvantages; but, strange to say, the shipowners, as a body, were always found foremost in the support of these restrictions and abuses; and when Huskisson proposed to relieve them by means of a drawback upon material used in building and victualling their ships, they actually refused the boon. So baneful was the system of protection, that every interest that fancied itself benefitted thereby, opposed changes even in its own favour, lest its own fancied privileges should be attacked or weakened in consequence. Such is the vicious circle in which error runs. But let us see how far the doleful prophecies of the shipowners of 1823 have been fulfilled or falsified by events, notwithstanding the admitted disadvantages under which they laboured until quite recently they have been relieved of many, in spite of themselves. The gloomy fears of the shipowners of that day anticipated that the privileges granted to foreign ships, would transfer all the trade of this country to those who, it was asserted, could build and cut their ships cheaper than ourselves. The American trade was to be carried on exclusively by American ships. And the continental trade by Prussian, Norwegian, and other foreign ships; and, in fact, our shipping, in future, was to be confined only to our own colonies. What has been the result? For seven years prior to 1823 the shipping trade of this country was nearly stationary. The following is a comparison of the shipping which was entered inwards and outwards in 1815 and 1823, the last year prior to the Reciprocity Acts:—

Shipping entered Inwards and Outwards.

1815.		
	Inwards.	Outwards.
	tons.	tons.
British.....	1,312,817	1,311,716
Foreign.....	673,687	671,335
Total.....	1,986,504	1,983,951
1823.		
	Inwards.	Outwards.
	tons.	tons.
British.....	1,688,336	1,483,592
Foreign.....	528,720	515,774
Total.....	2,197,056	1,999,366

Taking all our shipping during those seven years the increase was only about five per cent. Let us then see what progress it has made under the freer system since 1823. Lest we should be charged with profiting in this comparison by the extraordinary demand for shipping during the last four years, caused in a great measure by the repeal of that very system of protection, which the shipowners themselves strove so much to maintain, we will be content to make the comparison between 1823 and 1842, which was notoriously one of the most depressed for the shipping interest of late years. The comparison will be thus:—

Shipping entered Inwards and Outwards.

1823.		
	Inwards.	Outwards.
	tons.	tons.
British.....	1,688,336	1,483,592
Foreign.....	528,720	515,774
Total.....	2,197,056	1,999,366
1842.		
	Inwards.	Outwards.
	tons.	tons.
British.....	3,294,725	3,375,276
Foreign.....	1,205,303	1,252,176
Total.....	4,500,028	4,627,446

Thus, during the period when the shipping interest was to suffer such decay, the extent of British shipping has more than doubled, and the shipping of all kinds, which entered inwards and outwards in the trade of the country has increased more than 100 per cent!

But let us examine how far we were indebted to our colonial trade for this increase, and how far to the foreign trade, in open competition with the ships of all the world. For if it could be shown that the chief increase of British shipping had been to our colonies, where we still enjoyed a strict protection, even this increase would not prove the groundlessness of the fears entertained by the shipowners. If, on the other hand, it can be shown, that at least the same proportion of the

increase of our shipping was to those foreign countries, where we met foreign ships in open competition, and where we had no exclusive advantages then it will be conclusive evidence, that the apprehensions of the shipowners were groundless, and that competition had worked for them the same advantage that it has done to the silk manufactures and to the iron masters. We have before us Parliamentary returns, showing the proportion of our shipping engaged in the colonial and foreign trade, in 1820 and 1842, from which we gather the following facts:

In 1820, the 1,519,508 tons of British shipping which left our ports, were thus distributed:—

British Shipping entered Outwards to British Possessions.		
	tons.	men.
Gibraltar.....	14,375	820
Malta.....	5,171	300
Ionian Islands.....	7,898	436
Cape of Good Hope and coast of Africa.....	21,559	1,230
St Helena.....	1,835	95
Mauritius.....	753	44
East Indies.....	51,133	4,028
New South Wales.....	2,823	181
British North America.....	341,650	17,615
British West Indies.....	233,486	12,900
Guernsey and Jersey.....	6,139	5,161
Total to British possessions.....	746,822	42,820
Total to foreign neutral countries.....	802,686	53,029

Grand total to all places..... 1,549,508 95,840

We thus see, that even in those times men were so little aware of the actual facts connected with our shipping, that, while protection to our colonies was maintained by many, chiefly on the ground that they were the sole dependence of our shipping interest, and the only misery of our seamen—and while the Navigation Laws were insisted upon, as being essential to the existence of our shipping, nearly fifty-two per cent on British tonnage, even then, was employed in a foreign trade, where we had no protection, but entered into free competition with the shipping of the whole world, had such a fact been well known, and duly considered at the time, the apprehensions of our shipowners, as to the effects of free trade, might have been entirely removed.

Let us now see how the British shipping, amounting to 3,375,270 tons were distributed, which left our ports in 1842,—after nineteen years' experience of the Reciprocity Acts, which were to destroy all, except our colonial trade. The following is the account:—

British Shipping entered Outwards to British Possessions.

	tons.	men.
Gibraltar.....	43,503	3,606
Malta.....	40,141	2,043
Ionian Islands.....	7,055	398
Cape of Good Hope and coast of Africa.....	34,022	1,901
St Helena.....	3,979	218
Mauritius.....	16,307	803
East Indies.....	202,101	10,070
New South Wales.....	51,234	2,878
British North America.....	446,542	19,420
British West Indies.....	261,344	14,839
Guernsey and Jersey.....	144,366	12,625

Total British possessions..... 1,250,937 68,809
Total to foreign neutral countries..... 2,124,333 118,007

Grand Total to all countries..... 3,375,270 186,816

This account shows that we are dependant, for the employment of our shipping and our sailors, to the extent of sixty-three per cent, upon neutral countries, where we enjoy no protection, but where we meet in open competition the ships of all nations: while our own possessions, in which we still have exclusive privileges, employ only thirty-seven per cent of our ships and our sailors; which shows even more strongly how little colonial protection can be insisted upon, on the grounds they are the main stay of our great commercial marine—the main source of the supply of sailors to our navy.

Now, let us see how the increase, during this period of British shipping employed to our colonies, compares with that employed in the foreign neutral markets of the world. The comparison will be as follows:—

British Shipping entered Outwards.

	1820.	1842.	Increase.
To British possessions.....	746,822	1,250,937	67 per cent.
To foreign neutral countries.....	802,686	2,124,333	164 —
Total.....	1,549,508	3,375,270	

Thus showing that that trade, which was to be the only future support of shipping increased during the period in question sixty-seven per cent, while that which according to the prophecies of the shipowners in 1823, was to be entirely lost to the country, in consequence of the free trade measures then adopted, increased no less than one hundred and sixty-four per cent!

Can we have any stronger evidence of the groundlessness of these apprehensions, which

arise from a fear on the part of the British ship-owner to encounter any competitors which could possibly be brought against him? And if so strong a case is made out to show how groundless those fears were during the last twenty-five years, how much less reason is there for such apprehensions—now, that the duty on hemp has been entirely repealed; now that the duty on foreign timber is only about one third what it was then, and now that our ships are allowed to be victualled with provisions and stores of all kinds from our bonded ware-houses, free from the payment of duties of any kind. In another article we will endeavour to show that the protection at present enjoyed by British shipping is a mere name and a delusion—having no other effect than embarrassing the merchant and deceiving the ship-owner, and that it might all be removed without any possible injury to the one, but with great advantage to the other.

It would, doubtless, be too much to expect that, during the present session, the Government will introduce any measure on the subject of the Navigation Laws; but we cannot doubt that the inquiry, which is now going on before Mr. Ricardo's committee will lead to a measure early in the first session of the new parliament, calculated to remove the useless, but highly injurious, obstructions to our commerce, which these laws inflict; and we feel the more confident on this subject, from the enlightened views and the firmness of purpose in a wise course, possessed by the noble lord the President of the Board of Trade.—[London Economist.

CORN MARKET IN JERUSALEM.

The corn-market is a place covered over, and having a front with two arched entrances, which seem to be the remains of a building that has been erected and used for some other purpose. The floor is neither flagged nor paved, but is in a rough and uneven state. Those who come in with corn, bring it in small quantities, bound up in a coarse camel's hair cloth, and they sit down in the middle of the place until they dispose of it. As it is always brought in an undressed state, the work of dressing or separating the chaff from the wheat, is carried on in the market during the time of buying and selling. This is done with a sieve much like an English one, only instead of spells for the bottom, they use a kind of hemp string, well twisted, as thick as sail-twine, and with these sieves, and a miserable substitute for a dressing-machine, they half dress the corn. For I cannot say it is any more. There is another class of traders who sit around the sides of the market, and each of these have good large heaps piled up against the wall. I imagined they were corn as they were engaged in buying it from the others and then would deposit on their heaps. The grain was very dry, and not unlike our red wheat. Barley is very small and light, and is used to feed their horses; and as for oats I never saw any. The science of agriculture is not much understood, and no concern appears to be felt for improvement; and I may also observe, that their plowing, sowing, dressing, and grinding are of a piece.—[Lawlaan's Visit to Jerusalem.

THE CHANCES OF LIFE.—PEACE AND WAR.

The Topic says, a comparison of the registers of mortality will convince us that a hero, placed in the trenches of a beleaguered fortress, where he is exposed for weeks to a continual shower of cannon shot, or placed on a field of battle, before the bravest and most resolute of his enemies, has a much better chance of life, than less risk of premature death, than if he worked in some unfringed street, and slept in a crowded room in Bristol or Liverpool. The chance of life was at the

Table with 2 columns: Event and Chance of Life. Siege of Flushing 420 to 1, Siege of Alzeira 65 to 1, Siege of Badajos 54 to 1, Battle of Waterloo 31 to 1, Shopkeeping, Liverpool 19 to 1, Weaving, Manchester 17 to 1, Sawmilling, Sheffield 14 to 1.

A Census Calculation.—What is a billion? The reply is very simple—a million times a million. This is very written, and quicker still pronounced. A man is able to count it. You may count 150 or 170 in a minute; but let us even suppose that you may go as far as 200; then an hour will produce 12,000; a day 290,000; and a year of 335 days 1,051,200,000. Let us suppose now that Adam, at the first beginning of his existence had begun to count, and had continued to do so, and was counting still; he would not even now, according to the usually supposed age of the globe, have counted near enough. For to count a million times a million, he would require 9,412 years 21 days, 5 hours, and 30 minutes.

DIRECT STEAM LINE WITH BELGIUM.—The Chamber of Commerce at Antwerp has just appointed a Committee charged to submit a report on a projected line of steamers between Antwerp and New York.

Scientific.

SELF-INFLATING LIFE-PRESERVER.

We have in our office a Life Preserver made of India Rubber Cloth, and distended by wires placed internally in a spiral form. At each end of this cloth tube are metallic cases, or guards, with valves. When the air is exhausted, and the preserver folded up closely, (then occupying but a space little larger than the palm of two hands) if drawn out suddenly, with force, the valves open and admit the air, which inflates the tube—being thus distended with air, the valves, of course, resist its escape, and he who has use for the article has only to place it around his body, and fasten it by a catch easily fitted, to float as securely as one of another Carey's chickens on the top of the most angry waves.—[Charleston (S. C.) Courier.

IMPROVED MAIL BAGS.

We have been shown a newly invented mail bag manufactured out of Indian rubber, which from its many excellent qualities will probably supersede those now in use. The bag is so arranged that when closed it is perfectly air tight and of course, water proof. When filled with letters or any mailing matter, sufficient air introduces itself to render the whole extremely buoyant; and thus in case of accident, such as the sinking of a vessel, the mail bag would always rise to the surface of the water and its contents be kept perfectly dry. They are manufactured by Messrs. Rider and Brother, at Harlem, and can be afforded at about the same cost as the leather ones.

SMELTING COPPER BY ELECTRICITY.

A discovery has been recently patented in England for Smelting Copper by means of Electricity.

The effect of this change will be quite prodigious. It produces, in less than two days what the old process required three weeks to effect. And the saving of fuel is so vast that in Swansea alone the smelters estimate their annual saving in coals at no less than five hundred thousand pounds. Hence it is clear that the price of copper must be so enormously reduced as to bring it into use for a variety of purposes, from which its cost at present excludes it.

The facility and cheapness of the process, too, will enable the ore to be largely smelted on the spot. The Cornish mine-proprietors are anxiously expecting the moment when they can bring the ore which lay in the mine yesterday, into a state to be sent to market to-morrow, and this at the very mouth of the mine. In Australia also, the operation of this discovery will be of the utmost importance. Ten thousand tons of copper ore were sent from Australia to England last year to be smelted at Swansea; and the results was 1600 tons of copper. But Australia in future will smelt her own copper, by a 36 horse process, saving all this useless freight of the 8400 tons of refuse; and saving also the cost of the old and expensive process. In a very few years Australia will send to market more copper than is now produced by all the rest of the world. But if our future penny-peices are to bear any proportion to the reduced cost and value of the metal, they must be made the size of dinner plates.

This discovery is made at a very fortunate time for Canada, as the working of our copper mines is only just about to commence.

CURE FOR THE CONSUMPTION.

An officer in the British service, residing in the East Indies had been stricken with this fatal disease, and was reduced by it to nearly a skeleton. His friends looked upon him as a doomed man, and he himself had given up all hopes of long continuance of life. He was one morning crawling about his grounds, and accidentally went into a shed where a man had been betling some wine, and at the moment of his master's entrance had melted some resin to seal corks with. To the surprise of the afflicted one, his respiration became free and unobstructed, and it instantly occurred to him that the relief he experienced was produced by his having inhaled the resinous smoke.

He remained better during the day, and, without consulting his doctor, repeated the experiment in his sleeping room. That night he slept soundly—a blessing he had not known for years.—Twice a day for a week did he continue his experiment, and with increased success. He then mentioned the affair to his medical adviser, who was equally surprised at the improvement of the patient's health, and advised him to continue his inhalation night and morning. In the space of three months his cough left him, and his appetite returned. In six months his health was so improved that he contemplated returning to his native country; he delayed doing so, however, until a year had expired. Still persisting in his new found remedy, his health was completely restored, and he was once more a sound man.

For the Ladies.

THE KICKERBOCKER for May has been published. We take from a poem by J. A. Swan, the following lines, which seem to us to possess much sweetness and pathos.

She lay as in a dreamy rest, Her hands meek, folded on her breast; Her lips which knew no word of guile, Half parted with a beaming smile; I could not make her dead.

A pale rose gemmed her raven hair, As 't had loved to blossom there; Those silken locks that without check Twined with the fibres of her neck; I could not think her dead.

The birds sang sweetly in their play, Beneath the casement where she lay; And then I knew she only dreamed, For every thing so life-like seemed, I could not make her dead.

The sun sank golden in the west, And left his last beam on her breast; And sweetly there it quivering lay, And shook her vest like the heart's quick play; I saw she was not dead.

He tried to fright me with his speech, His solemn words, that cunning leech; That the tide of life had ceased to flow; In vain, I knew it was not so; I knew she was not dead.

Like two twin flowers upon one stem, We grew and lived and bloomed like them, 'Twas not in Nature, then that one Should fade, the other still live on; How could my love be dead?

They told me of a cold dark grave, And sighing leaves that o'er it wave; Of the motled worm would be the guest Of her I loved the dearest, best; I dared not think her dead.

But when I pressed her sweet lips twin, And felt no kiss pressed back again; And in her eye no tears could see, When mine were flowing mournfully, I knew her spirit fled.

MARRIAGE LIES.—Deceive not one another in small things, nor in great. One little single lie has before now destroyed a whole married life. A small cause has often great consequences. Fold not the arms together and say—'Laziness is the Devil's cushion.' Do not run much from home. One's own health is of more worth than gold. Many a marriage begins like the rose morning, and then falls away like the snow-wealth. And why? Because the married pair neglected to be as well-pleased after marriage as before. Endeavour always to please one another, but, at the same time keep God in your thoughts. Layish not all your love on to-day, for remember that marriage has its to-morrow likewise, and its day after to-morrow too! 'Spare' as one may say, 'fuel for the winter.' Consider, my daughters, what the word 'wife' expresses. The married woman is the husband's domestic faith; in her hand he must be able to confide house and family; he able to entrust her with the keys of his heart, as well as the key of his house. His honour and his home are under her keeping; his well-being is in her hand. Think of this! And you, sons, be faithful husbands, and good fathers of families. Let so that your wives may esteem and love you.—[Frederica Bremer.

THE WIFE.—It needs no guilt to break a husband's heart; the absence of content, the mutterings of spleen, the untidy dress, the cheerless home, the forbidding scowl and deserted hearth; these, and other nameless neglects, without a crime among them, have harrowed to the quick the hearts of many a man, and planted there beyond the reach of cure, the germ of dark despair. Oh! may woman, before that sigh arrives, dwell on the recollections of her youth, and cherishing the dear idea of that youthful time, awake and keep alive the promise she then so kindly gave. And though she may be the injured, not the injuring one—the forgotten, not the forgetful wife—a happy allusion to the hour of peaceful love—a kindly welcome to a comfortable home—a smile of love to hush hostile words—a kiss of peace to pardon all the past, and the hardest heart that ever locked itself within the breast of man, will soften to her charms, and bid her live, as she had hoped, her years in matchless bliss—loved, loving, and content—the soothing of the sorrowing hour—the source of comfort, and the spring of joy.—[Chamber's London Journal.

FEMALE PIETY.

If piety is lovely, it is eminently so in the female; if it is kind, the woman who is a sincere Christian is a striking exemplification of it; if it is a deep and abiding feeling, look at her who was 'lost at the cross, and earliest at the grave,' and you see it in all its strength. In short, if such a thing as true piety exists on earth, we may look to her who has been denominated 'Heaven's first, best gift to man,' and behold it in all its grandeur and native excellence.

THE FACE.—We, that is, I and he, find upon a human face, when it is old, the mottled counting-stick of severe sorrows which have so rudely passed over it; and when it is young, it appears to us like a blooming flower-bed on the slope of a volcano, whose next eruption will overwhelm it with destruction. Ah! either the future or the past is written in every face, and makes us, if not melancholy, at least mild and gentle.—[Richter's 'Thorn Pieces.'

TO YOUNG FARMERS.

We wish to employ a young, active, intelligent person in each District of the Province, to act as general Agent for the Canada Farmer. We find that local Agents do not interest themselves sufficiently to do us much service. To general Agents who will take the trouble to make occasional detours through the different townships to procure subscribers, the most liberal allowances will be made. We feel assured that no intelligent person need be ashamed of our journal, or hesitate to recommend it. We are determined that it shall occupy the first position as the Farmers' Paper; our readers can, by this time, form some opinion as to our ability to place it there.

Those who may be willing to undertake an Agency, as above, will please communicate with us as soon as possible, when we will make known our terms.

Scraps.

A GAMBLER. One evening a Jew—A notorious scamp was brought long since before an Onondaga Justice of the Peace, charged with the high misdemeanour of gambling. He was accused of having 'come the strap game' over a native. The party Justice wishing to decide understandingly, requested the culprit to give him a sample of his skill. 'The Party' instantly produced the betway-strap, gave it a scolding which crossed the bench, and remarked: 'You see, Judge, the quarter under this strap?' 'What?' interrupted the dignified functionary; 'do you mean to say there is a quarter there?' 'Sartan!' was the reply. 'No such thing,' said the Justice, 'I'll give you a dollar on it,' said the prisoner. 'Agreed!' exclaimed 'the Bench.' With accustomed adroitness the strap was withdrawn, when lo! there was the quarter! 'Well,' said the astonished Shallow, 'I wouldn't have believed it if I hadn't seen it with my own eyes! There is your dollar; and you are owed five dollars status in such case made and provided.' The elongated countenance of the discomfited gambler required no additional evidence to testify his appreciation of the state. —[Knickerbocker.

A JUDGE'S SCIENCE. 'Oil, oil, and away.'—Mr. Sergeant Adams, whose singularities and eccentricities occasionally produce much merriment in the court over which he presides, heard a case on Thursday at the Middlesex Sessions, in which a lad stole a piece of pudding from an eating house-keeper's in Clerkenwell. The evidence having been gone through, the learned judge thus summed up:—'Gentlemen of the jury, you have heard this case—off goes the pudding—off goes the boy—off goes the woman; she captures him hobling down a court, and here you have the boy, pudding and woman, before you; gentlemen, consider your verdict.' At the close of this loud and satisfactory address, the jury turned to each other in their box, and were soon in deep consultation. 'The impatient Judge hastily exclaimed, 'Go! God, gentlemen, what are you deliberating about! the case is clear enough.' This settled the poor jurymen at once, and turning around in alarm, they found the prisoner guilty. His love of pudding got him a month's imprisonment, with the pleasant prospect of a whipping by the gaolers at the end of the first fortnight.

'A little more than my dear,' whispered Lady B. to the gentle Susan, who was walking languidly through a quadrille. 'Do leave me to manage my own business, mamma,' replied the provident nymph; 'I shall not dance my ringlets out of curl for a married man.' 'Of course not my love; but I was not aware who your partner was.'

A gentleman rode up to a public house in the country, and asked, 'Who is the master of this house?' 'I am, sir,' replied the landlord; 'my wife has been dead about three weeks.'

RECTOR COVERTOUS.—A young lady, who was formerly a member of a church of the old school, had left it and joined another. On Sunday morning, as she was on her way to meeting, she met her old minister, who bowed to her very coldly, and said—'Good morning, daughter of the devil.'—'Good morning, father,' she replied.

THE HEEL OR THE NINE.—'That is a capital anecdote of "Kentuck" in the Spirit of the Times, illustrating the thickness and insensibility of a negro's heel. Ten or twelve "color'd persons" were amozing in one of their cabins with their feet to the fire, when one of them suddenly exclaimed—"I smell foot a burnin'!" Presently he added anxiously—"Who foot dat a burnin'?" Receiving no answer, he reiterated the question with still more emphasis—"Who foot dat a burnin'! I say! Dat yourn, Cuff? Still no answer; when, drawing himself up, he reached his hand toward his feet, and exclaimed—"My foot burnin', by golly!" and quietly stretched himself out to sleep again.

KITTENED.—An Ohio paper announces the marriage of Mr. J. B. Kitten, to Miss Eliza Jane Kitten.—Scat!

PIETY FAN.—'Pa, what is fiction?' 'There is no such word as fiction, my son,' says the father—'what do you ask that for?' 'Why, Pa, Mr. Badger says that the Americans have been building forty fictions in Mexico.'

'Charles,' says the father, 'you had better run home, you are too young to understand war matters.'

Why will women of the present day make economical wives? Because they make a great bustle about a little waste.

In what does a cigar differ from an author? With every puff the former diminishes, while the latter becomes bigger with every puff he gets.

Mr. Thomas C. Haggan, of Bronte, is our general travelling Agent for the Gore District. All business transacted with him from this date, in reference to the Canada Farmer, has our sanction.

News Department.

THE GROWING CROPS.

From the statements which we find in the American papers, it would seem that there is every prospect of an abundant harvest—particularly in the great West. The tobacco and cotton crops have been severely injured by the cold weather and hail storms, but the ground occupied by them has been planted with corn or other grain, more useful as food for man. In the Western part of this Province all spring crops look well; the fall wheat will not recover entirely from the effects of the winter. In this district, also, many fields are this year from the same cause, and cannot, no matter how fine the weather may be, yield a full crop. Throughout the Province, so far as we can learn from the local papers (which, by the bye, pay little attention to these things), the farmer's prospects are very good.

A destructive fire took place in Kingston on Monday morning last, about nine o'clock. Mr. Greer's storehouse and shed, with a large portion of their contents, were consumed. The News states the destruction of property to amount to 6,000 or 8,000 barrels of flour and some pork.

Large numbers of emigrants have arrived at Toronto within the last few days. They were mostly Irish, some of them apparently very poor.

Mr. Macdonald, the new Receiver General, has been elected for Kingston.

Mr. Sherwood has been appointed Attorney General for Canada West, and will probably be elected for Toronto without opposition.

GREAT RISE IN THE GRAIN AND FLOUR MARKET.

There are small stocks of grain all over Europe, consequently dearth of provisions more and more felt. Another important advance has taken place in the value of bread-stuffs, as well in Great Britain as in many of our Continental ports.

Canadian Red Wheat, 15s 6d to 14s; White, 14s to 14s 3d, Canal States Red Genesee, was 13s 9d to 14s, White, do. 13s 3d to 13s 6d.

Indian Corn was worth 50s to 51s 6d, on the 5th instant; yesterday it brought 43s to 46s per quarter of 40 lbs. On the 4th, Canadian flour at 10s to 11s per barrel; United States wheat at 25s to 40s 6d; the quotations of today show a rise of 6s to 8s a barrel on the former, and 2s 6d to 9s on the latter.

Accounts from the Continent show that much scarcity prevails in all parts; but as the navigation was opened, large supplies were expected to come down the river in a very short time; whereby the wants of people in the country would not only be supplied, but numerous cargoes would be transported to this kingdom.

NEW YORK MARKET.

New York, June 3.

Asks without any change of importance. Freight higher—engagements made at 4s.

There was a great excitement in bread-stuffs, from the announcement of the Hibernia's news, and the attendance on 'Change was very large.

Flour went up rapidly this morning and large sales were made at prices varying from \$8.75 to \$150 for Genesee. At the close, the demand was still good for shipment. Aggregate sales about 30,000 barrels. The market closed at \$9.37 1/2 to \$9.50 for Michigan. Holders of Genesee were generally firm at \$9.50.

Holders of meal wanted \$6, but there were few buyers at over \$5.75, though sales ranged from \$5.37 1/2 to \$5.57 1/2.

Rye Flour \$7.25 to \$7.75. The grain market partook of the excitement in flour.

Wheat advanced to \$2.25; at which 6,000 or 8,000 bushels were taken.

Corn holders advanced to \$1.25 to \$1.30, with large sales at these figures. Oats sold rather freely.

WOODSTOCK AND LAKE ERIE RAILROAD.

The Woodstock Herald, in acknowledging a receipt of a prospectus of this projected line, remarks:—

The plan embraces not only the construction of a railroad, but also the formation of a harbour on Lake Erie, and the building of eight vessels for the transport of the lumber, and also of two light, fast steamers. The Engineer's Report states that it has been the purpose of the projectors of the undertaking from the first, to construct the Railroad of metalized wood, according to Mr. Prosser's patent. The Engineer, has, however, for various reasons, which we think are very good ones, estimated for a common plate Rail Road, similar to those in use in the

States. Our space will not permit us to insert the probable annual expenditure and gross yearly income from the Report. The total annual gross income is £37,625 And the annual expenditure, - - 19,932

Net income - - - - £17,693

Or about 11 1/4 per cent. on the capital necessary to be expended by the Company, which the Engineer estimates at £153, 107 2s. 6d.

A lighthouse is about to be erected on Red Island.

The ice was fast in the Miramichi River on the 4th of May.

SCARCITY IN NEW BRUNSWICK.—The St. John Courier states that good American flour is held at eleven dollars per barrel in that city!

The corner stone of a new house of Refuge, in Rochester, was laid last week.

The Montreal Gazette announces that her Majesty has conferred on his Excellency, the Earl of Eglon, the Order of the Thistle; the vacancy thus filled up is occasioned by the death of the Duke of Argyll.

ST. LAWRENCE AND ATLANTIC RAILWAY.—Ground was broken at St. Hyacinthe for the commencement of the St. Lawrence and Atlantic Railway at that place.

The two criminals who were sentenced at the late Brockville Assizes to be hanged on the 27th inst., have had their sentence commuted to imprisonment for life in the Provincial Penitentiary.

INCENDIARISM IN EAST FLAMBOUR.—Last week a straw-stack, barn and shed, belonging to Mr. David Fonger, East Flambour, was destroyed by fire, which originated in an act of incendiarism. One Dougherty has been committed for the offence.

WHEAT.—The Lagrange, Mo., Fire Press says the wheat in that region looks promising. It is extremely doubtful whether anything like an average crop is obtained.

Table with 2 columns: Description of duties and Amount collected. Includes 'THE AMERICAN TARIFFS OF 1842 AND 1846' and 'Amount collected during same period, from 1st December, 1845, to 31st May, 1846, under tariff of 1842'.

Excess received under tariff of 1846 over tariff of 1842, in the first five months - \$30,091 74. There is in warehouse a considerable amount of goods upon which duties have not been paid—

MR. GEORGE STEPHENSON'S NEW LOCOMOTIVE.—We have some months back mentioned that Mr. Geo. Stephenson, C. E., had invented a three-cylinder engine; that is, one with two outside cylinders acting both together the same way and in the same plane, and a third cylinder, with a crank in the middle of the axle, at right angles to the plane and crank pins of the two other cylinders. The middle cylinder is double the capacity of the other two. We understand that the compensation by this middle cylinder is so perfect, that not the least wriggle takes place at the highest velocities. Its power is said to be such that it starts off like an arrow from a bow. If this invention succeeds, it will annihilate the list and find point contended for by Mr. Brunel as a merit of the broad gauge—that is, power. Far more power will be able to be thrown into the engine than any road can well bear.—[Railway Magazine.]

EDUCATION TO AMERICA.—21,892 passengers were entered at the Custom-House, New York, from 1st Dec. during the month of April last 10,616 sons sailed from England, Ireland, and Scotland, bound for Canada, from the second to the 10th April inclusive.

6000 young men of French Canadian Parentage are employed in cutting timber for exportation on the Ottawa. There are two hundred different lumbering places on the banks of the Ottawa.

Some robbers lately entered the Post Office, at Quebec, and stole from it \$20 in notes and coin.

A new line of steamers have been put on the route between New York and Boston.

The Island of Maderia is suffering severely for want of food.

SAD DISASTER.—The Newfoundland of the 22nd ult., records the loss of the sealing schooner Margaret, and of the awful loss of human life which accompanied it. Some of the crew, who it appears, arrived in Harbor Grace, on Thursday last, report that on the 9th instant, the vessel ran ashore in the neighbourhood of Greenspond, when the master, Mr. David Power, a man much respected, and twenty of the crew, were in a few moments, hurried into eternity.

The governors of the Montreal Hospital have elected six additional physicians to the former staff of that institution.

In Montreal the duty on Auctioneers has been reduced from £50 to £25.

Iron wire is to supersede that of copper on the telegraphic line between New York and Albany.

The water in Lake Michigan is a foot lower than it was last year at this time.

A new Free Church in Peter-street, Montreal, was opened on the 16th inst.

In answer to a memorial of the inhabitants of Quebec, soliciting the aid of the Home Department in the construction of public works in the Province, the Secretary of State admits the importance of the prospect of establishing a railroad from Halifax to Quebec, but until the survey is completed, her Majesty's government cannot enter upon a consideration of any such proposal.

A CURIOUS COURT HOUSE.—The following is an extract from the presentment of Grand Jury of the District of Gaspe:—It is well known to your Honourable Bench what sums of money Government has paid for the hire of a building, better adapted to the accommodation of cattle, than for any ostensible purpose. Grand Jurors have been obliged to debate in a stable, upon a vegetating carpet, produced by the animal power of coaction.

One of the most certain modes of detecting counterfeit silver money, is to draw the edge of a sharp penknife across the surface. If good, it will cut like a rich old cheese—if counterfeit, the edge of the knife will catch, as if it had come across some hard substance. Nitric acid applied to the cut only blackens silver, but produces a green solution if the coin be spurious.

The North American Lakes have been found to contain 1100 cubic miles of water, or more than half the fresh water on the globe, covering a space of about 80,000 square miles, and chaining a country of not less surface than 40,000 square miles.

A London correspondent of the National Intelligencer says:—The deficiency in the potato crop of last year is estimated at 8,142,299 tons; to supply this deficiency would take as an equivalent, 1,134,324 tons of Indian corn, which at 1d. per lb. would amount to £13,421,357.

A fossil cherry-tree was discovered lately in a bed of sandstone, in the Isle of Wight, 200 feet below the level of the earth.

Three persons lost their lives in crossing the Otonabee river at Peterboro' on a scow, a few days ago. Their names were Mrs. John O'Brien, and two young men, Shunkhane and Cuff.

EMIGRANT PASSENGERS.—From the 1st of January to the 17th of May inclusive, 44,627 steerage passengers arrived at the Quarantine Station New York while 527 died on their passage during the same period. Of those who arrived, 795 were admitted into the Marine Hospital, suffering with fever, and of whom 65 died. The whole number admitted into the hospital with "disease general" was 1,115.

Three soldiers who attempted to desert from Kingston were fired at. One was killed and the others badly wounded.

The boilers of the steamboat New Hampshire, while on her trip from New Orleans to Little Rock, exploded and 15 lives were lost.

In 1847 there have been 1057 marriages in the Island of Montreal, and burials 1422 females and 1393 males.

An Engineer has been engaged by the Peterboro and Port Hope Railroad Company, to survey and lay down a line of railway.

The debt of the city of Montreal amounts to nearly £191,000, of which £41,000 is due on the Bonsecours Market, and £51,200 for the purchase of the Water Works.

MANURE.—The Journal of Commerce has a letter from this Island stating that the famine there was caused mainly by the total loss by rot of the potato crop for the last two years. Flour sells for \$24 per barrel.

LICENSE ON SO LICENSE.—The returns from 281 towns in this state (New York) present the following result of the vote on the license question last week.

Table with 2 columns: License status and Number of towns. For license 193 towns, For no license 83 towns, Majority 115 towns.

Early in 1848 there will be sixteen steamships regularly plying between New York and Europe, by which means a weekly communication will be kept up with England, France, and other countries in the Old World, independently of the Boston line of Cunard steamers.—[Montreal Courier.]

RIOT AND FIRE.—We learn that the buildings at Ravenswood, opposite Blackwell's Island, known as the Lang Island Farms, and formerly occupied by the orphan children in the care of the city, were attacked by a mob on Wednesday night about twelve o'clock, and partly destroyed by violence, then deliberately fired and utterly consumed. The buildings cost about \$40.—[New York Tribune.]

TORNADO IN GRIFFIN, GEO.—The American Whig states, that a most violent tornado passed over the Southwestern part of that town, on last Saturday week, which demolished several houses of both wood and brick. The lady of Mr. Bulford, and three small children, were considerably, but not dangerously, injured by the falling timbers of the house in which they were at the time. No other persons were injured. A carpenter's work bench was taken up, dashed to pieces, and parts of it carried a distance of from eighty to three hundred yards.

QUICK PASSENGERS.—WRECK OF THE EXMOUTH.—The packet ship Adam Carr, Capt. Wright, arrived at New York from Glasgow in the unprecedented time of 16 days; and the schr. American Belle, Capt. Baxter, arrived at Boston on Friday, from Sigeo, 3rd inst.

The Adam Carr brought no news, but in a copy of the Glasgow Herald is given a full account of the wreck of the brig Exmouth, South, from Londonderry for Quebec, which was wrecked on the Island of Inlay, occasioning awful destruction of human life—all but three women being involved

in the general ruin. Her crew consisted of 11 men, and she had on board as passengers about 240 emigrants, principally small farmers with their families. There was also a number of women and children going out to join their male relatives who had already settled in Canada; and in the cabin were three young ladies, two of them sisters, going to their homes at St. John, New Brunswick. Among the passengers were only about 60 men. At the date of the latest advice from the island about 20 bodies had come ashore, principally females; one was a little boy. All were terribly mangled by being dashed against the rocks.—Other bodies were seen floating in the surf, but no boat dared approach them. The captain has left a widow and family. The seamen were all unmarried, save one, George Ross.

NEGLECT OF FLAX CULTIVATION.—Among the unfavorable features of the accounts from Ireland the prospect of a neglect of flax cultivation may be regarded as serious, inasmuch as the annual products of this branch of industry are usually estimated at £2,000,000. The price of seed has greatly fallen, although supplies are low in consequence of no shipments having been made from the United States, whence the export generally averages 8,000 tierces; and dealers allege that they have never known so limited a demand. This appears to have arisen not so much from the paralysis which has prevented a large portion of the people from attending to cultivation of any kind, as from the fact of the high price of wheat having tempted those who are still disposed to exert themselves to devote their means to an increased production of that article, and thus to discontinue their ordinary produce. It is to be feared, however, that this will prove a mistake.

THE WEATHER AND THE CROPS.—A gentleman who has just made the tour from Baltimore to Pittsburg, on the Ohio, thence through Mendville and Erie, Pa., to Buffalo, and thence by railway to the Hudson, informs us that the weather experienced was uncommonly warm for May, and that the drought throughout the whole section of country has been so protracted, that the grain crops of every description bear obvious indications of its blighting influence. The drought has cut off the usual green pasturage of the season, and the prices of all kinds of marketing are very high.—[Ohio Journal.]

CROPS.—An observing citizen of Columbus, who has recently returned from a pretty extensive journeying among the counties between the Scioto and Miami, authorizes us to say that the wheat crops look fine, and promise a full average yield, with an ordinary season from now till harvest. From some regions we hear croakings about a prospective failure of crops. Isolated cases of the kind no doubt exist; it were strange if they did not. But as a whole, there can be no cause to apprehend that Ohio will not have abundant for her own use, and something to spare "for the relief of Ireland" next year—should her necessities again require.—[Ohio State Journal, 20th May.]

WHEAT CROPS IN SOUTH CAROLINA.—The Greenville Mountaineer states, that great complaints are made of the injury which the wheat crop has sustained from the fly in that section of the country. Many fields are almost entirely ruined; others are scarcely affected; but the average crop, it says, must be small.

TO IMPROVE THE FLAVOR OF COFFEE.—To each pound of roasted coffee add forty to fifty grains of carbonate of soda. In addition to improving the flavor, the soda makes the coffee more healthy, as it neutralizes the acid contained in the infusion.

DEATH OF SIR WALTER SCOTT.—Died of dysentery, at the Cape of Good Hope, on his way home from Madras, Lieutenant Colonel Sir Walter Scott, Bart., of Abbotsford, eldest son of the author of "Waverley." Sir Walter was born in 1791, and was a Lieutenant Colonel in the 15th Hussars. The baronetcy is extinct, but the Abbotsford property passes to Walter Scott Lockhart, a Cornet in the 16th Lancers, the only son of the editor of the Quarterly Review, and the only grandson of the author of "Waverley." Sir Walter was married in 1825 to a Miss Johnson, of Locher, Fife, who still survives.

Toronto Market Prices.

Table with 4 columns: Commodity, Unit, Price (s. d.), and Price (s. d.). Includes items like Flour, Oatmeal, Wheat, Rye, Barley, Oats, Peas, Potatoes, Onions, Tub Butter, Fresh Butter, Eggs, Beef, Pork, Hay, Straw, Timothy, Mutton, Veal, Turkey, Geese, Ducks, Fowls, Chickens, Bacon, Ham, and Lard.

Advertising Department.

NEW CHEAP
Clothing and Tailoring
ESTABLISHMENT,

130 YONGE STREET, TORONTO.

Samuel Morphy

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

A VARIETY OF

READY-MADE CLOTHING

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

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

Toronto, March 17, 1847.

10

Notice to Agriculturists.

JOHN BELL, No. 7, VICTORIA STREET, TORONTO, CARRIAGE, SLEIGH, AND AGRICULTURAL IMPLEMENT MANUFACTURER, begs to acknowledge his sincere thanks to his numerous Friends and Customers, who, for a series of years, have so liberally patronised him in the above line. J. B. continues to manufacture, and keeps constantly on hand, Double and Single Carriages, Lumber Waggon, Carts, Lumber and Pleasure Sleighs, Cutters, Harrows, Scotch Ploughs (Wooden),—an article that defies competition, one of which was awarded the first prize at the late Provincial Agricultural Exhibition—Horse Rakes, Turnip Drills, and every article in the Agricultural Implement line.

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

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

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



Home District Mutual Fire Company.

Office—Nelson Street, opposite Adelaide Street, Toronto.

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

DIRECTORS:

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

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

All Losses promptly adjusted.

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

FOR Cheap Birmingham and Sheffield Goods, try the

NEW HARDWARE STORE,

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

J. Shepard Ryan,

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

CASH PURCHASERS will find it to their advantage to give us a call, as we calculate on clearing off our Old Stock every winter.

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

Notice.

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

Brewer, McPhail, & Co.,

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

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

Fairbank's
Platform and Counter
Scales.

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

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

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

WORKMAN BROTHERS & Co.

Toronto, 22nd March, 1847.

Workman Brothers & Co.,

No. 36, KING STREET.

OFFER FOR SALE:—

60 tons English Iron,
20 tons Best Iron,
20 tons Swedes Iron,
15 tons Hoop and Band Iron,
10 tons Sheet Iron,
3 tons Plough Shares,
2 tons Waggon Boxes,
2 tons Cast Steel,
3 tons Blister Steel,
1 ton Spring Steel,
1/2 ton Eagle Steel,
2 tons Camp Ovens,
2 tons Baked Pots,
5 Blacksmith's Bellows,
60 Blacksmith's Vices,
15 "Hill's" serrated Anvils,
120 Sugar Kettles,
40 Pintash Cookers,
10 boxes "Pontpool" Plates,
25 Box Stoves, 21 to 36 inches,
450 casks Cut Nails,
50 casks Wrought Nails,
20 casks Patent Pressed Nails,
35 casks Horse Nails,
40 casks V. wrought Spikes,
40 casks Coal Churns,
200 boxes Windows Glass,
2 tons Putty,
20 dozen Common English Spades,
10 dozen Common English Shovels,
5 dozen Irish Spades,
2 dozen Scotch Spades,
60 dozen Steel Shovels,
8 dozen Steel Shovels,
10 dozen Grain Scoops,
40 Philadelphia Mill Saws,
40 "Fairbanks" Platform & Counter Scales.

—ALSO—

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

18 PACKAGES OF SHEFFIELD & BIRMINGHAM

Shelf Goods,

With an Assortment of American Hardware.

Toronto, 25th March, 1847.

R. H. Brett,

161 KING STREET, TORONTO.

GENERAL MERCHANT—WHOLESALE

IMPORTER OF HEAVY HARDWARE, Birmingham, Sheffield and Wolverhampton SHELF GOODS, EARTHENWARE, and GLASSWARE, in Crates and Hhds.

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

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

Mr. C. Kahn,

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

J. Ellis, Civil Engineer.

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

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

Peter-street, Toronto, }
January, 1847. }

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

JAMES FOSTER.

January 18, 1847. 1-

Drug & Medicine Business,

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

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

Toronto, 9th March, 1847.

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.

Swain & Co's Hygienic Medicine,

OR, WORSDELL'S

Vegetable Restorative
PILLS,

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

Prepared solely by J. SWAIN & CO., 65, 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 STOMACH BITTERS, ESSENCES, PERFUMERY, &c. &c. &c.

Authorized Travelling Agents.

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

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

STRIKING CURES.

WHO WISHES TO THROW AWAY HIS
CRUTCHES!

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

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

I remain, Gentlemen,

Yours with respect.

P. McELROY.

To J. Swain & Co.,

Edwardsburgh, January, 1847.

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

ABRAHAM WILSON.

CURE OF OLD-STANDING STOMACH
COMPLAINT,

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

To J. Swain & Co.

GENTLEMEN,—For sixteen or seventeen years

I was afflicted with a Stomach Complaint, attended with distressing pain and general debility, and for the last two years of the time I was not expected to recover. At that time my husband was appointed Agent for the Sale of your Pills, who 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. WINCEP'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 ten 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.

THE

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