

Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

- Coloured covers/
Couverture de couleur
 - Covers damaged/
Couverture endommagée
 - Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée
 - Cover title missing/
Le titre de couverture manque
 - Coloured maps/
Cartes géographiques en couleur
 - Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)
 - Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur
 - Bound with other material/
Relié avec d'autres documents
 - Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
 - Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.
 - Additional comments: /
Commentaires supplémentaires:
- Coloured pages/
Pages de couleur
 - Pages damaged/
Pages endommagées
 - Pages restored and/or laminated/
Pages restaurées et/ou pelliculées
 - Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées
 - Pages detached/
Pages détachées
 - Showthrough/
Transparence
 - Quality of print varies/
Qualité inégale de l'impression
 - Continuous pagination/
Pagination continue
 - Includes index(es)/
Comprend un (des) index
- Title on header taken from: /
Le titre de l'en-tête provient:
- Title page of issue/
Page de titre de la livraison
 - Caption of issue/
Titre de départ de la livraison
 - Masthead/
Générique (périodiques) de la livraison

Wrinkled pages may film slightly out of focus.

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

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

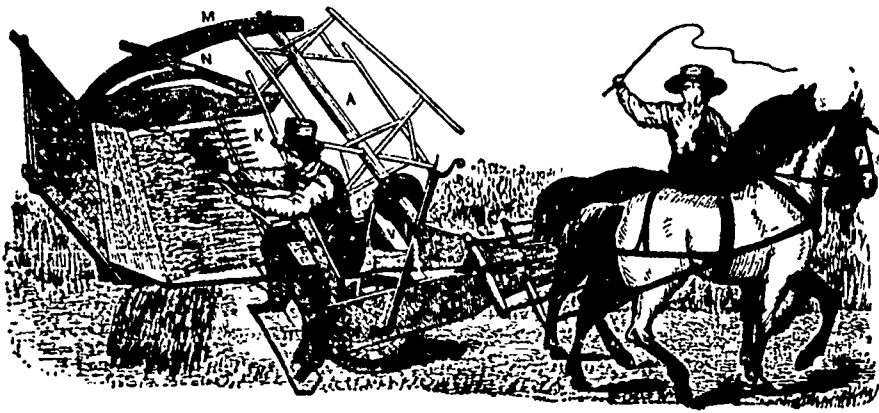


A Family Journal, devoted to Agriculture, Internal Improvements, Literature, Science, and General Intelligence.

Vol. I.

TORONTO, SATURDAY, MAY 22, 1847.

No. 9.



BELL'S PREMIUM "HORSE REAPER."

The above is a representation of one of the most useful of modern inventions. In this country, where labour is, and for some time must continue dear, labour-saving machines are objects of great importance to the Agriculturist. There is no period of the year when the farmer is more harassed and put about for want of help than the time of harvest. Everybody just then requires an unusual number of hands, and the demand becomes immediately greater than the supply. The highest prices must be paid for inferior workmen, and the work is either done badly, or not done at the proper time. Loss is thus sustained, sometimes of considerable amount. Now, if a machine could be made, which with the complement of hands already on the spot would reap 15 or 20 acres in a day, two or three farmers, by joining together in its purchase, would probably save the price (if not too high) in one year, besides getting rid of much anxiety and annoyance. The machine made by Mr. Bell is, in our opinion, just the thing that is wanted. The principle has been fully tested in Canada, we believe, as well as the United States, and has been found to work well. As to the workmanship of the article, Mr. Bell has made several substantial improvements on the American pattern, and affords the "Reapers" at a lower price notwithstanding. Those who have fields tolerably clear of stumps, and pretty smooth, will do well to call upon Mr. Bell, and examine for themselves. The price is 90 dollars cash, and 100 dollars at six months, with proper security. (See advertisement.) There is a slight error in the above cut. The wheat is shown to be turned round, with the heads from the machine, and across the horses' path. This would cause more labour for the raker, and is unnecessary. It may be raked off as it falls.

From the N. Y. Farmer and Mechanic

FAMILIAR SCIENCE IN FARMING.

By John B. Newman, M. D., Editor of the Illustrated Flora.

In the fifth verse of the second chapter of Genesis we are told that God created every plant of the field before it grew. Most probably after the life power was formed, an image of each vegetable was made from the dust and united with it, thus giving the plant a visible existence.

By a reference to many passages of the Holy Scriptures it will be found that the life power is used as a synonym for the soul; and science also confirms the idea that both are identical. A plant independent of its nutritive functions, manifests but a small share of instinct, so small indeed, that it seems at first sight hardly possible to conceive a near relationship existing between a cabbage and an elephant; yet the life power of both is the same in kind, and wants but the nervous organization of the beast to display similar phenomena. To prevent misunderstanding, it is proper to mention in this place, that all animals except man are possessed of soul (life power) and matter; man is composed of spirit, soul and matter, for when the Lord made him, he breathed into him the breath of lives, (not life, the Hebrew word is used in the plural form), one life, (the soul) beastly, and related to earth; the other, (the spirit) godlike, and related to heaven. Those who would wish to pursue this subject further, will find it fully explained in a work I am preparing for publication, entitled **MAN AS BEAST AND ANGEL.**

I am thus particular in defining the life power, because a knowledge of its laws, will enable us to solve all the phenomena it presents; and without that knowledge it would

be impossible to obtain any conclusions worthy of reliance.

Seeds are the simplest forms of the union of the life power with matter; a seed generally consists of envelopes (integuments) albumen and embryo. When placed in a warm situation and covered in the earth, the life power of the seed is excited to action, a little stalk is shot upwards by the embryo, which pierces the envelopes and rises to the surface of the earth, and at the same time a root runs below to gather nourishment; to provide nutriment until the roots are able to supply it is the object of the albumen, which is principally composed of starch. The extremities of the branches are formed of leech-like mouths, (spongioles) and these as soon as prepared, directly begin sucking up the elementary atoms: they not only imbibe the food, but act the part of stomachs in instantly digesting it, for even the chemists tell us, that once inside the spongioles, the fluid is of a homogeneous nature, and entirely different from what it was before its sudden combination.

The sap requires a supply of carbonic acid and at the same time to get rid of its oxygen, before it is fitted to supply the necessities of the plants. To effect this it must pass through the leaves, to which it is carried by an ascending series of vessels; arrived at those organs the desired result takes place, and it then becomes the proper juice. A leaf is nothing more than a simple expansion of the stem, a contrivance for gaining a greater extent of surface on which to spread the chlorophylle or green coloring matter of plants, for it is in this coloring matter that the power of expelling oxygen and absorbing carbon resides.—Some plants as the cactus have no leaves, the green surface of the stem answering these purposes. Light is the stimulus which enables the chlorophylle to perform its offices.

Being now thoroughly purified and compounded, the proper juice goes through the vegetable system and furnishes nutriment to every part. It meets in its course with little deputations of the life power, called with the instruments of action, glands, and these secrete the salts, poisons and essential oils. The refuse of the proper juice is thrown off by the descending series of vessels at the roots; this excrement is indigestible in all cases by the plant, and its accumulation explains the reason why soil deteriorates by the continual growing in it of one species and the necessity for turning up and decomposing fecal matter. This is the true reason why there is a necessity for the rotation of crops.

PRESERVATION AND APPLICATION OF MANURES.

We take the following observations, on a subject of vital importance to the farmer, from the American Agriculturist.—

The distinguished chemist, Boussingault, estimates the solid and liquid excrements of a man at 618 pounds per annum, containing 18 pounds of nitrogen—a quantity sufficient to grow 536 pounds of wheat. This would be equivalent to three barrels of flour. Now, supposing there are only ten millions of adults, producing each nitrogen sufficient for three barrels of flour; and ten millions more producing only half that quantity, we should have of this indispensable ingredient, enough to produce, annually, forty-five millions of barrels of flour, being more than two barrels for each person, large and small. If the alkalies, and other inorganic elements, which are shown above to be so essential to the preservation of the fertility of our soil, should exist, only to half the extent of nitrogen in human excrements, the advantages of saving and applying them to our soil would be unspeakably great. In suggesting a plan, by which such immense benefits can be secured to the country, and which will forever prevent our soil from deteriorating, and even reinstate that which has been, in a great degree, exhausted by improvident cultivation, I cannot do better than copy from the Report of the Commissioner of Patents, for the present year, the following extract, accompanied with the suggestion, that this plan, instead of being confined to our large cities, ought to be extended to every town, village, hamlet, and private residence. In a word, that it should be so extensive as to save all the human excrements, solid and liquid, excepting, of course, those which are deposited on cultivated fields by work hands, during their daily avocations.

"We will make a simple suggestion to the public, without charge. Insert under the aperture of a privy, drawers made of wood, iron, or metal, two feet wide, two feet deep, and any required length, with handles to each end, so that they can be as easily drawn up and handled as those of a desk. Put into these drawers peat, mixed with a little plaster of Paris, or charcoal-dust, mixed with plaster, to the depth of six inches, or a foot. Thus arranged, not the slightest unpleasant smell would arise from the privy; and every week or fortnight carts, with light boxes in them, should call at the house, and the drawers be emptied into them. In this way the yards would be purified of a shocking nuisance, and vast quantities of pou-drette could be weekly manufactured, for which any company could well afford to pay the city of New York \$100,000 per annum."

For this highly useful suggestion the Commissioner of Patents gives credit to the American Agriculturist, Volume 4th, page 116.

Where peat is not to be had, charcoal-dust and plaster of Paris, or either of them, may, perhaps, answer the purpose of mixing the ammonia of the excrements. But this is a matter that may soon be ascertained by experience, and the aid of a good chemist. The drawers under the privies must, of course, be water-tight, so that no part of

the liquid excrement may be lost, for these are the most valuable parts of them.

If the great city of New York should take the lead, in the introduction of a practice which is destined to be of such immense benefit to the country, she will be entitled to the gratitude of the whole nation. She will, at the same time that she is rendering an immense service to the agricultural interest, free herself from a most horrid nuisance, under which, in common with all other crowded cities, she is daily suffering the most serious evils. Next to the manures, which may be derived from human excrements, are, perhaps, ashes. These contain, not only alkalies in large quantities, but also most of the mineral elements, which enter into the composition of every description of plants. These are the very substances, which, as Liebig has abundantly shown, are by far the most important ingredients in all good soil. Other elements, such as oxygen, hydrogen, carbon, and nitrogen, are necessary, but these, except the latter, are abundantly supplied from the atmosphere; and it has been shown above, that the deficiency in the supply of nitrogen from the atmosphere can be more than compensated by a careful saving of human excrements, and the manufacture of them into pou-drette. But the supplying of our soil with the alkalies, and other mineral elements, which exist so abundantly in the ashes of all kinds of wood and plants, is an object of great importance, and one which demands the utmost care and circumspection. Not only should the ashes be saved, which result from the wood consumed as fuel, but also all that result from the burning of logs, brush, &c. in the plantations and clearing up woodland pastures. If not convenient to haul and spread these ashes immediately upon fields, which require to be furnished with alkalies and other mineral elements, they should be placed under cover, otherwise the rains, snows, and dews will dissolve the alkalies, combined with the ashes, and thus these highly useful substances will be carried down into the earth and all lost to the purposes of agriculture.

METHOD OF ASCERTAINING THE WEIGHT OF CATTLE WHILE LIVING.

This is of the utmost utility for all those who are not experienced judges by the eye, and, by the following directions, the weight can be ascertained within a mere trifle. Under the head **CATTLE** we have already given a useful table on this subject; but the annexed rules will be found of service. Take a string, put it round the beast, standing square, just behind the shoulder blade; measure on a foot-rule the feet and inches the animal is in circumference, this is called the girth; then with the string measure from the bone of the tail, which plumbs the line with the hinder part of the buttock; direct the line along the back to the fore-part of the shoulder blade; take the dimensions of the footrule, as before, which is the length, and work the figures in the following manner:—Girth of the bullock, 6 feet 4 inches; length, 5 feet 3 inches; which, multiplied together, make 31 square superficial feet; that again, multiplied by 23 (the number of pounds allowed to each superficial foot of all cattle measuring less than 7 and more than 5 feet in girth), makes 713 lbs.; and allowing 14 lbs. to the stone, is 50 stone 13 lbs.; and when the animal measures less than 9 and more than 7 feet in girth, 31 is the number of pounds to each foot. Again, supposing a pig or any small beast should measure two feet in girth, and two feet along the back, which multiplied together, make 4 square feet, that multiplied by 11, the number of pounds allowed for each square foot of cattle measuring less than 3 in girth, makes 44 lbs.; which, divided by 14, to bring it to stones, is

3 stones 2 lbs. Again, suppose a calf, sheep, &c., should measure 4 feet 6 inches in girth, and 3 feet 9 inches in length, which multiplied together makes 16½ square feet; that multiplied by 16, the number of pounds allowed to all cattle measuring less than five feet, and more than 3 in girth, makes 264 lbs.; which, divided by 14, to bring it to stones, is 18 stones 12 lbs. The dimensions of the girth and length of black cattle, sheep, calves, or hogs, may be as exactly taken this way as it is at all necessary for any computation or valuation of stock, and will answer exactly to the four quarters, sinking the offal, and which every man who can get even a bit of chalk may easily perform. A deduction must be made for a half-fatted beast of 1 stone in 20 from that of a fat one, and for a cow that has had calves, 1 stone must be allowed, and another for not being properly fat.

FOUNDER.

A spasmodic contraction of the muscles and viscera of the belly, which, without any other apparent disease, causes the horse to droop and lose his appetite. The founder horse is shrunken and hollow—his hair is rough—his discharges are black and dry. It will be necessary to give him repeated injections—make him drink large quantities of warm water—feed him on moistened bran, with a little hay—and awaken his appetite by all possible means. He should be exercised, but not fatigued. A founder is sometimes caused by extreme fatigue, and it may be then necessary to bleed, especially if it is accompanied by fever. A founder sometimes falls upon the feet and legs, principally upon the vertical tissue of the foot; it runs its course in a shorter or a longer time—hence the distinctions between the acute and the chronic forms of the disease. The acute is always accompanied by fever, and sometimes causes the loss of the hoof. It frequently produces a deposition of watery or spongy matter, between the hoof and the fleshy part of the foot. The chronic founder causes the hoof to grow out of shape in a variety of forms. The animal attacked by this form of the disease, has his legs stiff—he walks with difficulty—is unwilling to move—and places his feet so as to rest upon his heels. The affected hoofs are very hot, and the muscles of the leg tremble.

Hard driving, on a rough or frozen road—too long inactivity in the stable—resting too much upon one foot, when the other has some disease or hurt—green food, or too much grain—bad shoeing—a sudden cold—drinking too much cold water, when he is warm, are the most common causes of this disease. Those horses that have naturally thin hoofs, and consequently tender feet, are the most liable to it. The shoes should be removed—the stall thickly littered with straw and the horse put upon a strict diet. He should be bled—his legs bathed in cold water—and poultices, made of soot mixed up with vinegar, or clay mixed up with water in which green vitriol has been dissolved—scarifications round the top of the hoof—stimulating frictions to the legs—and purgatives, will furnish the proper treatment in these cases when recent. In an old and chronic case, the hoof should be pared or rasped, wherever it is thickened, and softening poultices, as those of flax-seed, applied; and the horse should take biters and strengthening medicines inwardly—but if it has been of long standing, it is difficult to effect a cure.

[NOTE.—Recently, the operation of cutting the nerve which gives sensation to the foot, has come into practice. It is doubtful, however, whether this is advisable in all cases of founder.]—[Manual of Vet. Medicine.

IMPROVEMENT OF CLAYEY AND SANDY SOILS.—Old Boissinault knows a thing or two, (says Abraham Smith in the Western Cultivator.) but he has not satisfied practical farmers how he might supply the defect of clay in sandy soil, and sand in clayey soil. May I venture to hint in homespun language? It is well known that there are certain vegetable matters that are quickly decomposed, such as ripe timothy, eye straw, &c. It is also well known that the defect in sandy soils is, principally, that the land lacks adhesion, and is too quick a conductor of heat and air, while the reverse is the defect in clay. Hence the remedy is indicated. With a clay soil, plow in hard woody substances, as ripe timothy, and plow in the fall. On a soil too sandy, plow under green manure, and plow at the time that the vegetable matter is full of sap, say clover in blossom, or oats just beginning to head. Chemists can tell us why and wherefore, and a practical farmer may see the effect if he will try

WEIGHT OF GRAINS.—The following we clip from a St. Louis paper, showing the weight at which the several grains and other articles therein mentioned are taken:—"Wheat, pounds to the

bushel, 60; beans, 60; clover seed, 60; potatoes, 60; rye, 56; corn, 56; flax seed, 56; onions, 57; buckwheat seed, 52; salt, 50; barley, 48; castor beans, 46; hemp seed, 44; timothy seed, 45; oats, 25; bran, 20; blue grass seed, 14; dried peaches, 33; dried apples, 24; stone coal, 70."

A GOOD AND DURABLE PASTE.—Dissolve about an ounce of alum in a quart of warm water, when cold and add as much flour as will make it the consistency of cream; then strew on as much powdered resin as will stand on a shilling, and two or three cloves, hold it to a consistency during all the time. It will keep for twelve months, and when dry, may be softened with water.

CANADA FARMER.

May 22, 1847.

THE BRITISH AMERICAN CULTIVATOR.

"Two of a trade can never agree" is a popular maxim which we were foolish enough to think we would be able to falsify. When we conceived the project of publishing the *Canada Farmer* we were perfectly aware of the existence of the *British American Cultivator*; of the talent of its editor (especially at English composition); of the firm hold it had secured upon the public, by means of what may be called a "Church and State connexion" with the Agricultural Societies, and of various other matters, "too numerous to mention," as the advertisements say; but, instead of regarding this journal as an obstacle in our way, we were for some time of opinion that it would be much to our advantage; that it had created a taste for agricultural reading; had convinced the farmers generally of the great benefit to be derived from a journal devoted to their interests exclusively, and of the propriety of supporting such in preference to mercantile or political journals; had, in a word, "prepared the soil," so that we would have little to do but cast in the seed! We find, however, to our great discouragement, that we were grievously mistaken. One of our agents wrote us the other day that he saw no prospect of success in that part of the country for the present, and he gave us the reason, "that the farmers in that vicinity had become so disgusted with the *British American Cultivator*, that there was no use in asking them to subscribe for an agricultural paper, the very name was enough!" As a proof of the extent of the feeling, he said that a year or two ago, 250 copies of the *British American Cultivator* came to that office, (he is a postmaster) but that this year there were not 20 copies! The same difficulty has met us in other places, so that our readers will perceive "a change" has, of necessity, "come o'er the spirit of our dream," but still we have not come to the conclusion that what is *past* can be mended, or any thing of importance gained in the future, by finding fault with the "management" of that paper, or "attacking" the Editor thereof; and we are certainly unconscious of having done so. We saw plainly that the evil would cure itself; that though people might swallow "trash and nonsense" for a while, they would not always do so, especially if something better could be had. We were therefore not a little surprised to find such sentences as the following in the number for the present month:—

"In the March number they put forth structures on our management which, we think, might as well have been omitted" "the article upon which these Editors have made assertions so groundless, and, perhaps, many will think so ungentlemanly, &c."

"In the April number of the above paper the learned Editors have thought proper to make three most unwarrantable attacks upon us, and, indeed, their short career has been pointedly marked with a factious spirit of opposition to the conductor of this Magazine."

Now, really it is too bad for this "dog in the manger" to show his teeth so horridly on so slight a provocation; he has been some time thinking about it, we admit,

for the remarks which have so offended and irritated his "dogship" appeared in our number of the 12th of March, and the above "articles" did not see the light until two months afterwards. Our readers will recollect (and if any do not, we beg they will turn, when they have leisure, to our "leader" in the agricultural department of that number, headed "Maple Sugar") that our allusions to the *Cultivator* were anything but ungentlemanly, and that we said not one word about his "management." We quoted some statements of his—said "we entirely dissented from them," and gave one or two reasons for doing so. Is the Editor so thin-skinned that he must fly into a passion because others venture to differ from his opinions, and to declare that his conclusions are wholesale and his promises unsound? But what is the use of arguing with a man who does not appear to know what he intends to prove, nor the meaning of his own language.

What was the *Cultivator* endeavouring to the best of his ability no doubt, to show in the article from which we quoted? The advantage of producing our sugar at home instead of importing it. How did he go to work to show this. By bringing forward facts to prove that we can produce it cheaper than we can import it! no such thing. "We are of opinion that sugar can be" &c., is all that bears upon that point of the question. But as to the value of the sugar imported, compared with that of the wheat and flour exported by us, a thing entirely collateral to the main question, he makes an abundance of remark. Now, "we are of opinion" that it makes very little difference as to the principle involved, whether we consume one thousand, or one hundred thousand pounds worth of imported sugar every year. To put the principle we allude to, in the plainest possible shape, for we fear that the *Cultivator's* acquaintance with the principles of political economy is such as to require plainness, let us suppose that a farmer, who subscribes to the *Cultivator*, and has implicit confidence in its doctrines, takes it into his head to make his own sugar; he has no maple trees, or if he has, he finds that the sap, as many found this spring, "wont run". He plants the sugar beet, weeds, hoes, and pulls them; scrapes and presses them; boils and purifies the juice, and at last gets it into sugar. He makes 500 lbs., and upon counting the cost he finds it to amount to 1s. per pound. With the same labour and expense he could have raised 200 bushels of wheat more than he did raise, in consequence of his time being occupied with the sugar. This would have brought him \$200, with which he could have purchased the same amount of sugar and had \$150 to spare! Has he gained or lost by the "home production." Let the *Cultivator* answer. Bear in mind, we do not assert that our figures would be borne out by experiment, we only suppose a case. We believe that the farmer would lose more than we have supposed, by such an operation. But if he loses at all the principle applies, and if it applies to the individual, it will apply to communities, and to nations. We went so far as to recommend experiments to "test the feasibility of making sugar on a large scale from the products of Canadian soil," and we laid down the "principle" just illustrated, in these words, "It is good policy to produce at home as many of the articles of home consumption as we can, provided we do not spend more time and incur more expense, than if applied to some other object would enable us to purchase from others." We now retract even the above recommendation, for upon investigation, we find that a sufficient number of experiments have already been made in the Northern States, in a climate more favourable than ours, to show that it is utterly impracticable to make sugar from the beet with profit.

The great burden of the *Cultivator's* article is upon the question whether for the past ten years our imports of sugar did not cost us more than our exports of wheat and flour

would pay for! Did we ever raise such a question? Not at all. We made no reference to the *past* because he made none. We quoted his own language, and quoted it fairly. We will give another extract from the same article: "If Canada could by any process place herself in a position to be independent of other countries for sugar," "so far as the actual wealth of the country is concerned the gain would be equal to the surplus products of wheat." Does not this look to the future? Is there anything retrospective in it? The same idea is repeated six or seven times in about half a column, but not a word does he say about the past. It was not to make provision for years gone by, but for the future, that his advice was given. The present and the future tenses were used, and no others. We denied his statement with regard to what "would" be "gained," and we gave no proof of the absurdity of this conclusion the returns of a single port for the last year, leaving every reader to judge, which every reader is capable of doing, whether our exports of wheat will be likely to diminish. We showed a balance of £200,000 in our favour at the port of Toronto for the last year, and we wished that to be placed alongside of his statement that "as important as is the export of wheat from Canada, still that portion of this article that is really the growth of Canada would fall short in a series of ten or fifteen years of supplying the country with sugar." But what will the reader think of the truth and honesty of this wonderful writer and compiler of "schedules," when to effect his paltry purpose he will belie himself and misquote his own words? "Our statement was," says he, "and we firmly adhere to it, notwithstanding the would-be-thunder attempted to be hurled (!) at us 'that in a series of ten or fifteen years the wheat which we have exported would fall short of supplying this country with sugar.'" No such thing. Such a statement is not contained in the whole issue of nonsense which composes his "article." And how does the reader suppose he undertakes to prove this last assertion? By showing "that there was imported into Great Britain of wheat from the British Colonies" in '36, '37, and '38, none; in '39, twenty-seven quarters; and in '40, 8,192 quarters; and that there was imported from Great Britain into these colonies" during the same time 1,857,936 bushels, "and we have," says this Solomon of wisdom, "1,792,183 bushels, being the excess of our imports over exports—so that in this series of years we had no surplus wheat to pay for sugar." Was there ever before an Editor who could find money to pay for printing, and people to read such nonsense as this? Will not the man see that it is not the "imports of Great Britain" that are in question, nor the exports of the "British colonies"? The exports and imports of Canada are the subject of discussion; and if he will look into our seventh number, he will find in an article headed "Our Surplus Grain" a tabular statement of the exports by sea from Montreal and Quebec for the last nine years. This table is taken, we believe, from an annual circular, published by Douglass & Glass, Montreal, merchants. Their statistics being obtained from the proper source, may be relied upon. In 1838, when, as he makes his readers believe, we exported none, he will find that we exported 59,204 barrels of flour; and in 1840, when he says we only exported 8,192 quarters, we exported 315,612 barrels of flour, and 142,059 bushels of wheat. During the last 9 years, exclusive of '47, it appears that we have sent down the St. Lawrence nearly sixteen millions of bushels (ground and unground). A small portion of this may have been the growth of the Western States. Whether the sugar we have imported during this "series of years" cost us 14 or 15 millions of dollars we leave to the *Cultivator* and his "schedules" to prove. But this is not the question we only refer to it to show that a writer who mistakes Great Britain for Canada and Canada for the "British colonies," (

which we believe there are upwards of 60) must be well adapted to enlighten the agricultural public. We would advise him the next time he dabbles in statistics, not to go to the British parliamentary returns to ascertain the exports of Canada; to recollect that there are more "British colonies" than Canada, and finally to get some one to translate this maxim, *in sutor ultra crepidam*, and treasure it up in his memory.

The answer to his insults will be found in another place. We (the agricultural Editor) did not see the remarks of our co-labourer (who displays rather too much of the John Bull) till they were in type, or we should have advised their omission; not because they are undesired, but out of respect to our readers. We promise them that we shall not, for some time, take up so much space with so disagreeable a subject.

BUTTER.

It is a subject of universal complaint that there is no system, or uniformity, in the mode of making butter in this country, and that, therefore, the quality of what is sent to market is generally bad. To talk of exporting butter to England or any where else, until we adopt some general system, and produce a better article, is nonsense. What little we have exported has been sold at the lowest prices, and used for raising cart wheels, &c.

It appears to us that if the township Agricultural Societies would direct their attention to this subject, and endeavour to establish some uniformity among the farmers in the mode of making, salting, packing, &c. &c., we might soon boast of being able to produce butter on a large scale, and of a kind that will bear comparison with that of our neighbours in the markets "beyond seas," and which will command the highest prices.

The following excellent article is taken from that standard work, the Farmer's Encyclopedia, and will be read, we trust, with interest and profit:—

"From some valuable experiments on the temperature at which butter may be best procured from cream by Dr. John Barclay and Mr. Allen, it appeared that cream should not be kept at a high temperature in the process of churning. In the experiment when the temperature was lowest, the quantity of butter obtained was in the greatest proportion to the quantity of cream used; and as the temperature was raised, the proportional quantity of butter diminished; while, in the last experiment, when the mean temperature of the cream had been raised to 70° not only was the quantity of butter diminished, but in quality it was found to be very inferior, both with regard to taste and appearance. That the lowest possible temperature should be sought in churning, appears likewise from another result of these experiments, the specific gravity of the churned milk having been found to diminish as the temperature of the cream was increased; thus showing, that at the lower temperature the butter, which is composed of the lighter parts of the cream, is more completely collected than at the higher temperature, in which the churned milk is of greater specific gravity." The conclusion to which they came therefore was, that the most proper temperature at which to commence the operation of churning butter is found 50° to 55°, and that at no time of the operation ought it to exceed 65°; while, on the contrary, if the cream at any time should be under 50° in temperature, the labour will be much increased, without any proportional advantage being obtained; and a temperature of a higher degree than 65° will be injurious as well to the quality as the quantity of the butter. (*Trans. High. Soc. vol. i. p. 294*) One of these experiments it may be well to abridge:—15 gallons of cream, at the temperature of 50° were churned; each gallon (equal to holding 8 lb. 4 oz. of water) weighed 8 lb. 4 oz.; by churning for two hours the temperature of the cream rose to 56°; and at the end of the churning it was 60°. The butter obtained weighed 29½ lbs. and was of nearly 2 lbs. for each gallon of cream: the butter was firm, rich, and pleasant. A gallon of the churned milk weighed 8 lbs. 9 oz.

Mr. J. Ballantyne found that the greatest quantity of butter from a given quantity of cream is obtained at 60°, and the best quality at 55° in the churn just before the butter came out; when the heat exceeded 65°, no washing could detach the milk from the butter without the aid of salt; but when a quantity of salt was wrought well into it, and the mass allowed to stand for twenty-four hours, and then well washed, the milk was separated. (*Trans. High. Soc. vol. i. p. 198*)

The method of making the best butter all over the dairy district of Scotland, is thus described by Mr. Aiton (*Quart. Journ. Agr. vol. v. p. 351*):—

"The milk, when drawn from the cow, is placed from six to twelve hours in coolers, the same as when set aside to cast up its cream; but this is merely to let the milk cool; and whenever it is divested of its natural heat, the whole meal of milk is emptied from the coolers into a stand vat or tub sufficient to contain the whole. If the vat is large, and a second meal of milk has become cold before the former meal of milk has begun to acidify, the second may be turned into the first. It is then placed in a vat, covered over, and allowed to remain undisturbed, till the milk has not only acidified, but until it has been formed into a coagulum (or *lapper*, in dairy language). It is now ready to be churned; and provided the lapper is not broken (which makes it ferment), it may remain, without injury, unchurned for some days.

Milk prepared in this way is churned in upright or plunge churns, of a size to suit the magnitude of the dairy. Where only a few cows are kept, the churns will hold about 100 quarts, from 200 to 240 quarts, and some still more. These large churns are on some large farms moved by machinery of various constructions, but in most dairy farms, churns of 200 quarts are wrought by hand-labour only. After the clotted milk is put into the churn, as much hot water is poured amongst the milk as to raise the temperature from 50° or 55°, which is about the ordinary temperature of a good spring or milk-house. Experiments instituted for the purpose have determined this as the best temperature at which to commence the operation of churning, and that at no time during the operation ought it to exceed 65°. If the temperature be higher, it will be attended with injury to the quality and quantity of the butter. If lower than 50°, the butter will not 'come.' After the butter has formed, warm water may be gradually added, so as to raise the temperature to 70° or 75°, one person agitating while another throws in the water. The temperature must be raised to or above 70° before the butter can be separated from the milk; and this cannot be accomplished in any way so well as by pouring in boiling water after it has begun to be churned. If the milk is too cold when churning it swells, has a pale white colour, throws upon the surface many air bubbles, and emits a rattling noise; the time of churning is from 2¼ to 2½ hours; the milk being of ordinary quality, 24 pints imperial yield 24 ounces of butter.

In the making of butter, care and cleanliness are requisite. The cows should be milked in the cool of the morning and evening; they should be driven very gently, and if brought to the milking-place some little time previously, it will be all the better. In some countries they milk them in their pastures, a practice commonly followed in mountainous districts, and where they are distant from the dairy. The teats of the cow should be washed often with water, and the dairy floors (which are best of brick) and all the dairy utensils cannot be too frequently washed, not only because dirt is exceedingly noxious to the production of good butter, but from the coolness which it produces in the dairy.

When the milk is brought into the dairy, it is strained through a sieve, to remove any mechanically diffused matters, and then placed in shallow pans and coolers, or leaden troughs. Some are made of iron tinned, others of brass. There is however an objection to leaden troughs, for at the point of contact between the air and the cream, the latter aids the oxidization of the lead; and carbonic acid being attracted, a carbonate of lead (white lead) is formed, and communicates a poisonous property to the cream. Painters' colic has been thus sometimes communicated to dairymaids. Zinc, or iron tinned, is preferable to lead for dairy vessels. The same objection applies to brass as to lead. Metal ones are regarded as the best, from their rapidity of cooling in summer, and from their being more easily warmed in the winter; they are besides (and the same remark applies to the milk-pails, &c.) more readily and completely cleaned than those of wood or earthenware. The dairy should be well ventilated by wire-gauze windows, and protected by either trees or buildings from the heat of the sun. In twelve hours the finest portion of the

cream has risen to the surface, which, if then separated from the milk and churned, produces a very delicate butter. It is commonly left, however, for twenty-four hours, and then skimmed off and deposited in an earthen vessel. In the dairies of the usual size, the cream collected is churned every two days, and the formation of the butter is found to be materially accelerated by the cream acquiring a slight acidity; indeed, it has been sometimes contended that, without the presence of an acid, butter cannot be made. Lactic acid indeed is always present in buttermilk; an acid quality is even, in some cases, imparted to it by the dairymaids, who add a small quantity of vinegar or lemon-juice; this, however, does not improve the flavour of the butter, and it injures it considerably for salting. To effect the separation of the butter from the cream, a considerable degree of agitation is necessary, varying with the electrical state of the atmosphere, and other circumstances. Of the influence of electricity no one will doubt who has witnessed the effect of a thunder-storm on a dairy of milk. The agitation or churning is produced by various sized churns, the most common shaped of which is the upright wooden churn, with an upright plunger; others are made of barrels, turning on an axle by means of a common winch; some are made like cradles, and rock much in the same manner; these are worked chiefly by hand. But it is sometimes done by horse power, and very commonly now in Cheshire by small portable high-pressure steam engines; these last might easily be made to cut chaff, bruise corn for stock, crush bones, and a variety of other useful purposes.

In the course of a period varying from one hour to several hours, according to circumstances, the butter begins to make its appearance in small lumps or kernels, which are gradually increased in number as the churning proceeds; these are collected and placed in a shallow wooden vessel, or washing-tub, and when all the butter is 'come' or extracted, little else remains but the buttermilk. The butter placed in the washing-tub is worked by the hand into a mass, the buttermilk squeezed out, and the butter washed in water, an operation which, when it is intended for keeping, cannot be too carefully performed; and if the person who works it has not a very cool hand, it should be kept as cool as possible by frequent ablutions in cold water. A large portion of the butter made at a distance from large towns is salted and put into casks or firkins, which weigh about 56 lbs.; about 3 or 4 lbs. of salt are required for this purpose, which should be of the finest and purest description, totally free from the bitter deliquescent salts which commonly abound in that made by artificial heat from sea water. The casks also should be made of clean wood, and before the butter is placed in them they should be well washed with hot brine. 'If,' says a writer in the *Penny Cyclopaedia*, 'there is not a sufficient quantity to fill the cask at once, the surface is made smooth, some salt is put over it, and a cloth is pressed close upon it to exclude the air. When the remainder is added at the next churning, the cloth is taken off, and the salt which had been put on the surface is carefully removed with a spoon. The surface is then made rough with a small wooden spade, and left so, and the newly salted butter is added, and incorporated completely. This prevents a streak which would otherwise appear at the place where the two portions joined. When the cask is full, some salt is put over it, and the head is put on. If the butter is well freed from all the buttermilk, and the salt mixed with it quite dry, it will not shrink in the cask, and it will keep its flavour for a long time.' Dr. Anderson recommended for preserving butter a composition of salt 2 parts, saltpetre 1 part, sugar 1 part; 1 oz. of this mixture to 16 oz. of butter. It seems that butter thus treated will keep sweet for a lengthened period; but that for the first fortnight it does not taste well.

In Devonshire the method of making butter is peculiar to the county. The milk is placed in tin or earthen pans, and twelve hours after milking, these pans, each holding about eleven or twelve quarts, are placed on an iron plate over a small furnace, the milk is not boiled, but heated till a thick scum arises to the surface; if when a small portion of this is removed, bubbles appear, the milk is removed, and suffered to cool. The thick part is then taken off the surface, and this is the *clouted cream* of Devonshire, which is known all over England. By a gentle agitation this clouted cream is speedily converted into butter.

In Holland they churn the cream and milk together, after it has been kept sufficiently long for a slight acidity to appear. They churn, it seems, sometimes with a horse, sometimes by a dog, or turnspit, working on a wheel; a plan which I think might be well adopted, in many

cases, in England, to the saving of the labour of many a poor dairy-maid. In the large dairies, however, about Dixmunde and Furnes, the cream only is churned three times a week.—(*Flemish Husb. p. 61.*)

On an average, four gallons of milk produces a pound of butter, and a good cow should produce six pounds of butter per week in summer, and three pounds in winter. Of English butter that of Cambridge and Epping is most celebrated. But the consumption in England is much greater than the farmers can supply: very large quantities are in consequence annually imported into England; thus, in 1825, the import from Ireland amounted to 422,883 cwts., and from foreign countries 159,332 cwts.; this last in 1835 was 134,346 cwts., of which 106,346 cwts. came from Holland. (*McCulloch's Com. Dict.; Trans. High. Soc.; Quart. Journ. Agr.*)

THE POTATOE QUESTION.

The facts, and reasonings upon them, contained in the following extract from the proceedings of the New York Farmer's Club, are, in our opinion, quite conclusive as to the cause of this mysterious malady, about which there has been so much "unprofitable speculation." The conclusions are such as we have already drawn ourselves, and from the clear and able manner in which they are here set forth, will, we think, challenge the assent of our readers:—

To consider the potatoe disease as one of those inexplicable visitations of Providence, which no human skill can avert, and, therefore, to give up all further enquiry, seems to me a conclusion unworthy the intelligence and the enterprise of the present age. When careful and long-continued experiments and observations shall have been made, and scientific research exhausted without any indication of success, it may be given up in despair; but neither have the efforts to ascertain the cause of the disease been so long continued; nor the indications of success so unpromising as to justify such a conclusion.

Much has been said and written upon the subject, and many theories have been advanced, most of them founded upon careful observations and adhered to with great pertinacity. One discovers aphides among the vines of the diseased plants, and after many examinations he finds that where these abound the tubers decay, and where there are none the tubers are sound. He therefore concludes he has discovered the true cause, and gives no credit to any other theory. Another concludes from his observations, that the disease is caused by fungi. Some attribute the disease to different manures, others to soil or to peculiarities of the season. All may be right in some sense; any or all of these causes may contribute in completing the destruction; but that no one of them is the primary cause is very evident. The very fact that there are so many and so various causes, either of which appears by careful observation to have been adequate, is, of itself, sufficient to prove that they are all secondary, and in reality only effects of something beyond, which must still be sought as the true primary cause, through whatever instrumentality it may exert itself.

There are certain facts probably known to all which I shall state here, not as anything new, but as the foundation of an argument.

1st. Potatoes have very generally ceased to produce seed, although blossoms may be seen in abundance; you may, in some instances, examine large fields in the proper season without discovering a single ball.

2nd. The potatoe crop is much inferior in quality to what it was formerly. I have known a 1000 bushels produced from a single acre, cultivated in a very careless manner, and in some parts of the field I have seen a bushel dug from four hills. 500 bushels per acre was formerly considered only a fair crop, without much care in manuring, planting, or cultivating. What is considered a fair average crop now?

These facts seem clearly to indicate the loss of vitality in the plant. I infer, therefore, that the potatoe, mainly is in consequence of loss of vitality, occasioned by long-continued propagation from the root, without renovation from the seed. This inference

appears to me reasonable, because established principles of natural history justify it.

It appears necessary:—

1st. Because the committee appointed by the Viceroy of Santa Fe de Bogota, nearly one hundred years ago, to investigate the same subject, after laborious research reported that the disease was caused by loss of vitality, which must be renewed by planting the seed from the vines; and further, after five years they reported that among the planters who had propagated new varieties from the seed balls of healthy tubers, not a rotten potatoe could be found. This is a matter of record found in the archives of the government. (See Mr. Williamson's statement Agricultural, p. 44.)

2nd. Because the well attested facts, stated by Mr. Smith, of Buffalo, as the result of his experiments prove the same thing. (Agricultural, p. 51., and Cul. p. 21.)

It may be stated also that the Savans of Russia, appointed by the Emperor, to investigate the subject have come to the same conclusion, and induced the Emperor to order from this country all the seed that could be procured, as stated here by the venerable Mr. Thurlton.

That the inference is fairly drawn from principles and facts in natural history I shall now attempt to show, and I hope to do it satisfactorily to every candid mind. It may be proper here to state some of these principles and facts—I offer the following propositions:—

1st. Although most plants may be propagated either by seed or by cuttings, the former method only can be perpetual: the latter can not be continued for any length of time.

2nd. The progeny of any plant will possess all the essential properties, and generally most of the incidental properties of the progenitor.

3rd. There is in the procreation of plants a tendency both to improvement and to deterioration.

4th. The better the condition of the plant at the time of procreation the better will be the condition of the progeny.

5th. Although great changes may be produced in plants, yet these changes require time and frequently many reproductions.

6th. The circumstances of soil, climate, and cultivation, &c. will do much to vary the apparent loss of vitality from age in plants.

7th. Plants that have lost their vitality are more subject to the attacks of parasites than plants in a vigorous state. Plants have their peculiar parasites but they are not always confined in their depredations to the plants in which they originate.

8th. The production of abundant blossoms few of which are succeeded by mature fruit, is an indication of loss of vitality, and generally on account of old age.

These propositions are too simple, and obvious to every careful observer, to admit any doubt. It would indeed, seem to be a retrograde movement in science to attempt to prove them, yet if granted, they are sufficient for my purpose: they will explain all the phenomena that have been observed and reported in relation to the potatoe rot.

The plant is said to be attacked by aphides, this is true, but as explained by the 7th proposition above—Plants that have lost their vitality are more subject to the attacks of parasites than plants in full vigour. Fungi have been found in great abundance upon the diseased plants. This is explained in the same way, but it is said the attacks of these same fungi are not confined to the potatoe, and hence it is inferred that they do not originate in a disease peculiar to this plant. Parasites often prey upon plants in which they never originate.

It is said again, that crops, in many instances, were less injured by the rot in 1846, than crops upon the same ground were in 1845; although the seed for the crop of 1846 was taken from the crop of 1845. This is explained by the 6th proposition, which also accounts for the different degrees of disease in different soils and with different manures. In short there is no well authenticated fact in relation to the disease, that may not be satisfactorily explained by supposing the cause to be from the long continued propagation by the root, without renewing from the seed.

Although I have already said more than I at first intended to say, yet I cannot dismiss the subject without bestowing a passing notice upon some editorial remarks in the Albany Cultivator.

I regret that a person who stands so high, as does the editor of this valuable periodical, allow himself to take so superficial a view of this impor-

tant subject. In an article in the January No. p. 21, he says—"If it were true that the potatoe disease were wholly constitutional, as our correspondent supposes, the vegetable would be equally affected in all locations, which is not the case." This is a strange inference indeed! He might as well say, if a man is affected with the scrofula, or any other constitutional disease, it is of no consequence what regimen he adopt, he will be just as likely to die under one course of treatment as another. Again, he says—"If it can be proved that varieties of fruit degenerate by being propagated by grafting or budding, we should regard it as evidence that the potatoe might be effected in the way indicated." He must be a young man, or have spent his days among seedlings, not to have had opportunity of knowing by his own observation, that although the quality of fruit is not deteriorated but rather improved by grafting; yet the vitality of the graft cannot be protracted much beyond the natural age of the original stock. The choicest fruits of former times have all passed away, notwithstanding the efforts to continue them by grafting, and have been succeeded by new varieties, obtained from seedlings, many of which equal or surpass their predecessors. This is a fact so well established and so important, that it ought to be known to all interested in the cultivation of trees, and other plants; and especially to those, who, from their position, are to give direction to the opinion and practice of others.

Again he seems to infer from his own experience that the disease in the potatoe cannot be eradicated by planting the seeds. He says—"of the six or seven kinds produced from seed, nearly all were evidently effected (affected) by the potatoe disease." Yet he admits that—"One or two kinds seemed to have more natural stamina than the others, and continued vigorous till the close of the season." This is precisely the result indicated by the 3rd, 4th and 5th of the above propositions. It is not to be supposed that a deeply seated constitutional disease can be wholly eradicated from plants or animals, by a single reproduction.

His own account, however, shows considerable advancement towards renovation by a single experiment.

There is certainly enough of probability about this theory to claim for it a candid consideration. Let it then be fairly and fully investigated. Let experiments of planting seed be continued, and let the facts observed in all attempts, to renew the vigour of the plant in this way, be compared with the laws of propagation. If there are apparent discrepancies let them be published, and if they cannot be explained, by the principle of this theory, let it be abandoned.

An important step has already been taken by Mr. Smith of Buffalo, and his success has been as great as could reasonably be expected. It has, in fact, been in exact accordance with the fixed laws of nature.

This subject should be met by careful investigation, founded upon sound principles, and guided by common sense; not by that guessing method which knows no principle, unless it be to adopt the most popular opinion.

In conclusion, let me ask—is there not much reason to believe that if these experiments be continued not only planting seed but the seed of balls selected from the most vigorous plants: in a few years the potatoe rot will have wholly ceased, and this distressing calamity will have passed away.

To the Editors of the Canada Farmer.

GENTLEMEN—I beg to state for the information of your correspondent "Thistle Farmer," that a sure way of extirpating the Canada thistle is as follows:—Plough them early in the spring and continue ploughing them every two or three weeks during the summer. The next year pursue the same course and in the fall you may sow wheat your ground will be in good order and you will not be troubled with many thistles. I have killed and seen killed, several patches of these weeds by this simple process. You will at once see, Messrs. Editors, that this plan is in exact accordance with the principles you so clearly explain. I substitute the plough for the hoe, which would require too much labour for a large patch. Wishing you every success—an increase of Canada Farmers, and the utter extinction of Canada thistles, I beg to say, I am,

A SUBSCRIBER.

Whitby, May 15th, 1847.

WARTS.—Warts on the udder and teats of cows may be easily removed, simply by washing them in a solution of alum and water. We have known this application to result favourably even after all other prescriptions had failed, and the disease seemed to have advanced beyond the possibility of cure. Try it.

FORWARDING BUSINESS—CITY IMPROVEMENTS.

From the Government wharf at the west to Gooderham's wharf at the East of the city is a distance of about two miles, along which is interspersed a large number of wharves, all showing signs of substantial improvement. The class of vessels employed in the Lake and River trade is every year getting larger; and it is found that the smaller ones have not the slightest chance of competing successfully with the larger. It is said by those who understand the subject, that when the canals to Montreal are completed, flour can be profitably carried from this city to Quebec for 1s. 3d. a barrel; though last summer the forwarders charged 2s. and in the fall 2s. 6d., and even higher than that. The Kingston forwarders have not yet published their tariff of rates, but it is said that they stoutly refuse to carry flour from Kingston to Montreal for 3s. and it is expected that they will demand 3s. 6d.

In noticing the improvements that have taken place in the wharves of this city since the close of navigation last fall, we will commence at the East and proceed to the West:—

GOODERHAM AND WORTS WHARF.—This is a new wharf, built during the winter, with a store-house upon it, by Gooderham and Worts, owners of the City Steam Mills.

The mention of steam mills reminds us that Mr. Cleal has just got a Steam-mill into operation in the vicinity of the market, in the Engine of which he has made some improvement.

MR. SMALL'S WHARF is the next as we proceed westward. A new Glue Manufactory and shed for drying have been built on this wharf during the winter. A new Steamboat, the property of Mr. Lamontaine, has been built at this wharf. She is intended to run to the Island, her proprietor having leased five acres of ground, from the City Corporation, near the Block-house on the Peninsula.

MR. CULL'S SHIP YARD.—A new three-masted Schooner, the *Iceland*, 130 tons burthen, has been built here during the winter. A new Schooner, the *Ardelia*, 75 tons burthen, has been built at Mrs. Maitland's old wharf since the fall of last year.

MR. CAWTHRA'S WHARF.—New buildings have been put up here for a Timber Yard.

MR. ALLEN'S NEW STEAM MILL.—The next important undertaking westward, on this line, is an extensive new Steam Flour Mill, which is being built on the property of Mr. Geo. Allen, son of the Hon. Wm. Allen, and which we believe is to contain six run of stones.

MACHELL'S WHARF, which is the next in order, has had a new Store-house built upon it during the winter.

FRONT OF THE MARKET.—The Corporation have put down breast-works, and are busily employed in filling up with earth, which when completed will extend to the esplanade hating about 80 feet.

MR. BOULTON'S WHARF has been extended 13 cribs in length during the winter.

MR. HELLIWELL'S WHARF has likewise been extended 9 cribs.

MR. MAITLAND'S WHARF has undergone thorough repairs and extensive improvements. A new front has been put to it, and the old parts at the sides renewed. A new Store-house 100 feet by 60, and capable of holding about 15,000 barrels of flour, has been built at a cost of about £1000, under the superintendence of J. Johnston, Esq., Architect. The Custom-house has made it a bonding-warehouse. There are now three bonding-warehouses in the city, viz., Maitland's, Brown's, and Gortie's. On Maitland's wharf there are 1000 barrels of flour and 100 barrels of oatmeal, for the Toronto Highland Relief Fund. A handsome new brand, "Highland Relief Toronto" has been made for the purpose of branding them. There are also on this wharf 50 barrels of flour for the Scarborough Highland Relief Fund.—[Examiner.]

"WE HAVE DONE WITH THEM."

Our readers must bear with us: we have an unpleasant subject in hand. The Editor of the *Cultivator* has thrown down the gauntlet; and the first law of nature, self-defence, bids us take it up. With that peculiar cunning, which characterizes the lower order of animals, the Editor of that paper attempts, in the outset, to get the better of us by placing us in a false position. Let the public hear his accusation:—

"In the April number of the above paper (the *Canada Farmer*) the learned Editors have thought proper to make three most unwarrantable attacks upon us; and indeed their short career has been pointedly marked with a factious spirit of opposition to the conductor of this magazine, which strangely and strongly contrasts with the spirit we have, both in private and public, manifested towards them."

We deny the whole charge, and call upon the Editor of the *Cultivator* to produce his proof, not a title of which has he attempted to bring forward. That our allusions to the *Cultivator* have invariably been made in the spirit of candour and fair discussion, we appeal to our readers, we appeal to the public, we appeal to the whole contemporary press, which from Halifax to Wisconsin has noticed our labours in a most flattering manner. Unless the *Cultivator* produce proof to support his accusation, he will stand convicted of having uttered a deliberate falsehood. He claims great credit for "the spirit which he has manifested" to us in private. We acknowledge that until recently we have no rudeness or incivility to complain of. On the contrary, one of the Editors of this journal, was, after a very slight acquaintance, asked by the Editor of the *Cultivator* what Grammar there is, composed for children, from which he the (Editor of the *Cultivator*) would be likely, in the shortest time, to learn the rudiments of his native tongue. "Cobbett's Grammar" was recommended in the same friendly spirit in which the advice was asked. But, we are sorry to observe, that every subsequent number of the *Cultivator* bears conclusive evidence that our advice has not been acted upon. And now the Editor of the *Cultivator*, who cannot write a single sentence in English correctly, and whose journal, save a few extracts, would be a disgrace to the literature of any country, turns round and advises us "not to write on subjects we do not understand."

The Editor of the *Cultivator* never lets slip an opportunity of piling himself: "For the information of these Editors (of the *Farmer*) we would state, that we print an edition of eleven thousand copies of the *Cultivator*" "Print" Pray, Sir, how many do you circulate? As this information is given for our especial benefit, we are, of course, at liberty to make use of it, and comment upon it in all its bearings. We have no doubt that two thousand, or thereabouts, of the *Cultivator*, is sent into the world at each issue, of which some hundreds have been, in a very unfair manner, thrust upon the members of Agricultural Societies; many of whom, however, have the good sense to leave copies addressed to them in the Post Office, rightly judging that it would be very foolish to add the loss of postage to the subscription.

The *Cultivator* has been got into circulation by the most barefaced jugglery that ever imposed on a credulous public. Before that journal came into existence, several really valuable American Agricultural journals were circulated in the Province. But on the establishment of Agricultural Societies in Canada, which the parrot-like Editor of the *Cultivator*, echoing the sentiments of American journals, recommended; and has since incessantly continued to chatter about; at this time, or shortly after, he made these Societies a crutch for his deformed banding to lean upon. So soon as he succeeded in getting it made part and parcel of these Agricultural Societies, his object was gained. The speculation was successful, and the Editor of the *Cultivator* set up for a Patriot! Somewhat different from the Patriot of former days.

There can, of course, be no impropriety in Agricultural Societies taking Agricultural papers; on the contrary, it is their duty to disseminate knowledge by such means; but it is not right that every member of an Agricultural Society should be forced to pay for a journal which all the more intelligent look upon with contempt. Valuable Agricultural journals have in consequence of this manoeuvre been nearly driven out of circulation; and the *Cultivator* has therefore inflicted a serious injury on the Agricultural interest. The thing was managed in the first instance by whining and spiritless appeals to the sympathy of the farmers; by fabricating stories about five-hundred pounds being lost in one year by the *Cultivator*: when, as any printer will attest, the whole cost

could not have exceeded half that sum. After the fabrication of all these falsehoods, the carrying out of this bare faced deception, and the deadly blow aimed at the interests of Agriculture, by drying good journals out of circulation and disgusting the public with everything that bears the name of an Agricultural paper; after all this, that despised rag thinks its circulation a thing to boast of!

This is not a thousandth part of what we could reveal regarding the *Cultivator*. For the present we let him slip, but, should he again trump up any charges against us, we pledge our word that we will handle him without gloves; and thoroughly expose the quackery by which he has humbugged the public. It depends upon himself whether we have "done with him."

From the Commercial Advertiser.
RUINS.

Many o'er, ancient temples sigh,
Whose scattered beauties heap the ground—
From classic Greece, from Italy,
From Egypt's shores in darkness bound,
From Palestine, the Holy Land—
Their voice floats on each passing wind;
But doth in all one ruin stand
So great as a degraded mind!

Go through our country's wide spread space—
The land of sacred freedom's boast—
See in each house and dwelling place,
Ruin'd sunk beams, what a host!
Youth, its bright aspirations crushed,
Manhood and age, their virtue gone,
Are ruins of a nobler dust
Than in Greece or Rome are gazed upon

We mourn o'er Herulanum's fate,
And sigh o'er Popen's buried towers,
But is the desolation great
Like ruin of immortal powers?
Can Rome's colossal statues fur—
Its bronzes, temples, arches high—
One moment with the mind compare?
With virtue, truth, or wisdom vie?

Would that our own—the best of lands—
The city, hamlet, village fur,
Contained no dark, no "Legion's" bands
Their peace and virtue to impair;
Would that where thought and mind are free,
Where revelation opens sublime,
Man soared for immortality
Nor lost his lineage divine.

Would that some voice of power might speak
Like His on trembling Sinai heard,
The dreadful charm of sin to break,
By its divine Almighty word.
Would—but man's heart is prone to ill
As upward mounts the kindled flame;
No power can change the stubborn will,
But Jesu's great, all-conquering name!

Ye then who sigh o'er Greece and Rome
—Their sculptured grandeur in decay—
Come sigh o'er thought's immortal dome
Darkened to truth's eternal ray;
More than a form's ruins mourn,
A great Colosseum's glory lost;
O'er that sublimest ruin mourn,
The temple of the Holy Ghost
Clarendon, N. Y., 1847. G. M. C.

* Luke, chap. 8—30. † Romans 9—7.
‡ Acts 4—12. § 2d Cor. 6—9.

Literary Department.

PURSUIT OF KNOWLEDGE UNDER DIFFICULTIES.

In these days of cheap publications when menial quantities of trashy literature find their way into the hands of young readers, it is refreshing to find a work like the one just issued by the Harpers, bearing the above title, calculated to stimulate exertion and create a desire for knowledge. We could not, among all the works that have recently been issued, select one better calculated to produce good and lasting effects upon the mind, and show the value and importance of self-education. The second edition has been got out under the auspices of Dr. Wayland, of Brown University. We present an extract from a late criticism on the book:—

The desire of mental improvement and enjoyment, resulting from a principle in the human constitution, implanted there by the Creator, has led to neutral exertion, to the discovery of truth, and to the defining and enlarging of its relations and legitimate boundaries. The fruits of this exertion constitute what is called human knowledge, in the most general sense of the term. It has given birth to science, to philosophy, to the arts, to literature. The vast panorama of the universe, in all its beauty, its glories, and its mysteries, has been made the subject of scientific investigation, and the human intellect has been successfully exerted in exploring its secrets and defining its laws. The heavens and the earth, animate and inanimate nature, have yielded up the key of their mysterious chambers to his anxious questionings. Astronomical genius, with a sublimity and boldness of aim, alike admirable and success-

ful, has explored the mechanism of the heavens—tracked the stars in their courses, ascertained the measure of their orbits, and the principles of their movements. The material world with which we have more immediately to do, the scene of our present existence, has been explored in its departments, and the various operations and production of nature have been laid open to the inquiring mind. The bowels of the earth and the depths of the sea, have been penetrated, the most sublime and terrific phenomena—the storm—the earthquake—the volcano—alike with silent and beautiful operations of the springing of the grass, the blooming of the flower, and the ripening of the fruit, has been investigated, and for the most part investigated successfully.

Nor has the human mind been less diligent in the investigation of its own organization and faculties—in its inquiries into the nature and powers of the understanding—the laws and compass of the reasoning faculty—the office and work of the memory and imagination. The realms of thought and feeling—the intellectual, the sensitive, the moral world within the bosom of every man, constituting his true and proper being, have been patiently, and in some degree, successfully explored.

By that most wise and beautiful provision of the God of nature, which, while it allots to particular individuals, the desire and the power of exclusive devotion to particular departments of knowledge—to science—to philosophy—to literature—to the arts, thus contributes most effectually to the advancement of the race in the one great field of intellectual exertion and inquiry, we have had from earliest times a succession of masterminds, at once the benefactors of their race, and the living exponents of the capabilities and aspirations of mankind. "Lights of the world" in a higher sense than that of the poet, they have not only revealed truth hitherto unknown, but by their encouragement and success, incited the general mind to engage in exploring its boundless field. Reaping for themselves, and for man, the fruits of individual exertion, they have also strengthened the universal desire, and directed the exertions which it prompted into legitimate channels. Such minds, it is true, have often stood apart from and above their age and times, because endowed with larger desires and higher powers for the discovery of truth. But as such they only present themselves the more prominently, as the representatives of the mental and moral powers and destiny of man, exhibiting and testifying to the fact that intellectual aspiration is a principle most deeply interwoven in his nature, and that intellectual and moral progress and enjoyment are his rightful prerogative.

This truth will be strikingly confirmed by even the most superficial acquaintance with the history of the human mind in its search after truth. The desire of knowledge, of spiritual attainment and spiritual good, celestial but earth-bound principle as it is, has always manifested its glorious origin and tendency, in its efforts to establish for itself a sphere of action and enjoyment above the material and sensual objects by which it is environed, to gain and preserve the supremacy of the mind over the body. The rudest essays and the most imperfect discoveries of earliest times, equally with the wonderful revelations of modern science, and the brilliant creations of modern literature and art, attest its essential existence in the human constitution, and its universal power. We notice its manifestation in the studies of the Egyptian priest in his gloomy temple—in the silent night watchings of the Eastern magi, no less than in the speculations of the old philosophy—in the mythology, the poetry, the rhetoric, the arts of Greece and Rome. In the dark ages it gave rise to arts of Charlemagne, of Alfred of England, of Abelard and Roger Bacon, and stirred the sublime genius of Dante—called forth the exquisite breathings of the harp of Petrarch—the pleasant tales of Chaucer, and the glorious creations of Michael Angelo. Neither the darkness of paganism, nor the stormy and battling times of ancient history—nor the long dark night of superstition and imbecility has obscured it. Of its manifestations its efforts, its achievements in modern times, we need not speak. Its records and monuments are every where around us—we ourselves feel and do homage to its powers.

The principle of which we speak is universal, unconquerable. It is the great impelling principle of the human mind, or rather it is the mind itself in action. The most unpropitious circumstances, and the most limited means of study, have never been able to conquer the inborn desire of knowledge, the thirst after mental and moral progress and enjoyment. It has given the strong heart and the determined purpose to men, in every age of the world, and in every condition of life. Obscurity has not been able to

hide it. Poverty has not been able to depress it. Sorrow and want and persecution have not been able to rob it of its glorious energy. In spite of adverse circumstances—in spite of outward restraints, it has shown itself endowed with a force and constancy which rarely, if ever, belong to any of the lower principles of action. It gave consolation and high purpose to Terence and Epictetus in slavery, and made one a father of Roman comedy, and the other the best of the stoic philosophers. It nerved that heroic spirit of Heyne amidst the grim poverty, the actual starvation of his boyhood, and the almost incredible privations and toils of his youth and early manhood. Tasso felt and blessed it in his prison-house. Metastasio owned its power when he ran barefoot about the streets singing extemporaneous verses, and Pope Adrian VI., the son of a poor artisan of Utrecht, yielded to its inspiration when he betook himself for study to the church porches and the corners of the streets. It called the immortal Linnæus from the shoemaker's bench to be the founder and unrivalled expositor of botanical science, and from a carpenter's workshop carried John Hunter to the first rank of anatomists. But it is needless to multiply examples. These few will be amply sufficient to evince the truth of my position, that the love of knowledge and its rewards is indestructible in man. His constitution, his destiny, his natural desire after happiness, impel him to mental improvement and the acquisition of knowledge.

THE GREAT PROJECT OF THE AGE.

Mr. Whitney has, we think, made a just estimate of the character of the American people, of their resistless enterprise, and wonderful physical energy in the attainment of practical physical results. He has looked at the movements of the times, and has seen the mighty strides every where making in the progress of human improvement, and has the boldness to stand out in advance of them all, and call to this working, restless age, to come up to his help in the building of the grandest single work of public utility ever attempted by the human race.

We notice that this indefatigable man is now in Albany, advocating his favorite project. The *Argus* thus makes mention of his efforts:—

"Mr. Whitney's explanation of his great project for a railroad from Lake Michigan to the Pacific, on Friday evening last, in the Hall of the Assembly, was listened to with much interest and favor by a large number of the members of both houses of the Legislature, and many of our most respectable citizens, and we believe (though not able to be present), he made his project appear plain and feasible. Its vast importance no one can doubt."

As to the present prospects of the project, Mr. W. stated that "a committee of the 28th Congress reported in its favour, recommending it to the people, and the public lands as the only means for the accomplishment of such a work; that a committee of the 29th Congress gave a unanimous report in its favour, and brought in a bill setting apart the lands prayed for; that the last session of Congress being short, and the Mexican war, prevented action; that the people throughout the country had expressed favour for it, and that the press almost universally had advocated it; that meetings had been held, popular and legislative expressions made, and legislative resolutions passed in its favour, &c.

The *Argus* then adds:—he explained the feasibility of the route, which, it appears, is more favourable than any railroad route we have heard of. It appears that, from the Lake to the Pass in the mountains, 1600 miles, a road can be built, on a straight line, and no part with a grade exceeding 25 feet to the mile, and much of that distance on an average grade of 6 feet; from the pass to the ocean, about 800 miles, it will be more difficult, though perfectly feasible."

A single glance at the results of this great work must convince every one of its vast importance. With this road completed, at 30 miles per hour for the railroad, we can reach the Pacific, at the Columbia river or San Francisco, in 5½ days, allowing almost a day for delays. Thence to Japan is but 4000 miles, which, with steamers, at 12 miles per hour, would be reached in 14½ days from New

York; from the Pacific coast to China, 5400 miles, requiring but twenty days, or from New York, 25½ days. The sea voyage around the Cape, 16000 or 17000 miles, now requires from 100 to 160 days. From the Pacific coast to Australia 6,000 miles, could be reached by steam in 22 days, or from New York in 27½ days. The sea voyage, more than 14,000 miles, consumes from 100 to 130 days. From the Pacific coast to Singapore, 6660 miles, reached by steam in 25 days, or from New York in 30½ days; now, the sea voyage, nearly 15,000 miles, 100 or 130 days.

The magnificent results promised by this work overwhelm the mind, it is true, but they are comprehensible, nevertheless, and appear to be within our grasp.

We understand that Mr. W. desires some expression from our legislature, and we do not doubt it will be promptly granted, and in a form as favourable as he may desire. It is important that this subject should be acted upon early at the next session of Congress.—[Buffalo Courier.

MEHEMIT ALI AND EGYPT.

All the modern travellers in the East have made Mehemit Ali a subject for one of their spirited, sketching chapters. But none have so fully let us into a knowledge of the state of this country, as has a Reverend Mr. Fairly, in a late book of travels, entitled "Travels in the East." We extract some portions of his chapter upon the present state of Egypt:—

The Pasha, being an usurper, is the centre of an artificial glory derived from circumstances, which, if they be the spontaneous exertions of a people themselves, are credible tokens of a prosperity internal and solid; but when they are brought from a distance, and established by violence, they are about as much the substance of a prosperous state as the feathers of the jay which the jackdaw put on were proofs to his companions that he had become in any degree the better for having put them on. I augur, therefore, that with the pasha himself will most assuredly fall to pieces all the borrowed plumes of his government.

However, to do him justice, we will see what he has done; and then when you have contrasted the present state of his country with the past, you will be enabled to judge for yourself.

Now, he has established security of life and property from all marauders, except himself; he has made Bedouins and other robbers respect him by daily hangings in Cairo. Europeans are suffered to wander where they will unmolested. There are no civil commotions, his officers know that a vigilant eye watches over their conduct. He has a camel post from one end of the country to another; he has brought artisans of all kinds into the country from Europe; he has attempted to grow sugar, he has brought in physicians and hospitals; he has built schools, to encourage mechanics and sciences; he has made a large fleet; he has immense armies, perhaps 130,000 men under arms; his name is a perfect passport over a tract of country that never before knew what law was; he has built palaces and mosques; he has attempted to improve the cultivation of the soil, by the formation of a Board of Agriculture; and when all this, to which more might be added, is put together, the result is a great deal of very delusive grandeur, centering upon the pasha himself, like the flame which was said to have played round the cradle of the infant Servius. The pasha alone is magnified in the eyes of Europe; in the maintenance of his glory his satellites subsist; and the people—the poor people—exhibit the lasting truth of the old maxim,

"Quidquid delirant reges plectuntur Achiivi."

Now, is Egypt, whereby I mean domestic life, and all the interests of family relations in Egypt, the better for this regeneration?

Not at all; but much the worse! The manufactories are worked to a loss, they do not repay the cost of production. The schools call into being a number of useless scholars, only to draft from them the more talented for the service of the government; the remainder are returned on hand to their parents unfit for any ordinary purpose of life, such as life is there. The army is large only on purpose to show a front of war against his master; the fleet again is for show, not for service. The hospitals are for the soldiers. The hospital schools are for army medical

students. If a fellah Arab be sick, he must either die or go to a quack doctor, and this in the very village where there is a refined European surgeon for the garrison. Then agriculture is improved, but the peasant is plundered, starved, and ruined, turned out of house and home a beggar. The cotton is sold for English money, which finds its way into the pasha's coffers, and from thence, through various strainers, to the unpaid soldiers, to maintain the artificial fabric of which Mehemet Ali is the centre. His imported artisans do their work, come and go or stay; but the people are not taught.

The revenue is unnatural and forced, ground by the most savage exactions from the penny of the people. Everything is secure indeed from others, but not from himself; in monopolizing power he has claimed the sole right to rob. Under the Mamelukes the mosques enjoyed grants of property in land, and extensive districts belonged to them, being the donations of pious men who had not advanced to a contempt for their faith. These have been seized, and the priests and colemans are now stipendiaries of the government, upon a reduced scale. Not a peasant in the land can call his rough wool shirt his own for two days.

Speaking of the agriculture of the country our author says:—

Now, the pasha is lord of the soil; as pasha he claims the power of Pharaoh, to whom his subjects mortgaged all their property in the soil. To improve his agriculture, there is a central council for this purpose in Cairo. They decide upon the gross amount of sugar, cotton, corn, and other produce to be raised during the year; and in various parts of the country there are magazines for collecting the district production. Now should a fellah have sown his own wheat, and the crop be come up a foot high, yet if an order be come from the central board that cotton must be planted instead of wheat, then away goes the wheat and cotton is planted; and if when the cotton is grown, he wants a part for his own use, he must first take the whole to the magazine, and there redeem, at the pasha's rate of sale, the part he wants, with money paid to him at the pasha's rate of remuneration for labour, which is little enough.

The present general poverty of the country is also represented as incredible. The author says:—

Now, on landing at a village, a few blind old men and women are seen together with some ragged thin children, like the Cyclops, with but one eye: the second has been put out to prevent their being taken for soldiers when they grow up. The able men are hiding in the mountains to escape a conscription or heavy tax that may be collected. Often not an egg or fowl is to be had for money. In a word, misery of the worst description reigns in the whole of his dominions; and notwithstanding he is called the renovator of Egyptian greatness.

The author thus pictures the character of the man, and draws his forecast of the future:—

The great originator of all this change is now become an historical character; and his name will, in some degree, belong to his country. I venture to predict that he will be remembered rather as the cause of some singular movements of the European nations drawing closer and closer round the coming fate of the Turkish Empire, as foreseeing the day not far distant, when the aspect of European power will take its complexion from events to be brought about at the Bosphorus, than as an agent of permanent good or evil to the country over which he rules. That his power and his family will speedily lapse into insignificance may be safely foreseen, in that the military constitution of his government has no element of prosperity during peace; and there is a curse upon rebellion that ever comes sooner or later. At the same time, that he is a master-mind none can deny; none who have seen him can fail to recognize the mild, affable, and dignified sovereign; none can refuse a certain sort of tribute to the keen, resolute, bold and fearless cunning by which he steered himself through the difficulties and mazes of the outset of his career; and granting the maxim of every Eastern usurper, that the art of government is to aggrandize the ruling power at the cost of the people, none can refuse to admire the more than usual share of impartial justice that has characterized every subsequent act of his despotic power, when freed from necessities and exigencies left him at liberty to act as he thought fit.

He is a mixed character, and his greatest misfortune I believe to have been his connexion and association with the worst elements of Europe.

European tactics were the first to suggest and have since furthered the rebellion; now European force has turned against him, and prescribed him limits and peace. He is a strange mixture of faith, credulity, discrimination, and earnestness, without learning, and yet the bone of contention between the most enlightened nations. Childish in the extreme at times, at others composed when all besides have trembled: a lover of justice, and yet an oppressor, polite, frank, and open, and yet designing, shrewd and suspicious; in short, a great contradiction, a great rebel, and yet a great man.

Scientific.

NEW MANUFACTORIES.—AN ADMIRABLE ARRANGEMENT.

Four Companies for the manufacture of cotton and wollen fabrics have been recently organized at Uica, the capitals of which vary from \$100,000 to \$300,000. One of them is already in operation. It has been found that steam is not only an economical motive power, but a large contributor to the value of the manufactured article. In addition to its heating the building, and driving the machinery, it is used to dry, full, dye, and soften the fabrics, with the most perfect success. The steam, after performing these various functions, is condensed and transformed into the purest water, which is used in washing and cleansing the wool, to which it imparts great softness and lustre. The goods thus far produced, are in great demand, and are sought for here in Boston, at which latter place, they have brought a handsome advance upon the usual prices.—[Far. & Mechan.

HYDRAULIC ENGINE.

Mr. Elijah Bishop, of Jamestown, N. Y., has invented an engine on a novel plan, but on the true scientific principles, and calculated to supply the place of water wheels, for propelling machinery, &c. We shall not attempt a full description without an engraving, but merely say that it consists in part, of two large vertical cylinders with pistons and rods extending up to two ends of a horizontal shaft above. The bottoms of the cylinders are furnished with large disk valves of peculiar construction, and so arranged that while water is admitted into one of the cylinders from a water-pipe or pent-stock at the bottom, the water is discharged from the other and vice versa alternately. Thus while the force of the water is applied to raising one piston, the other is forced down by atmospheric pressure equal to the weight of the water contained in the cylinder, and the valves are reversed by a simple connection of machinery on the approach of each piston to the bottom. No other packing is required, than that of an ordinary pump piston, and consequently there will be but little friction. The power is communicated from a drum or gear wheel mounted centrally upon the crank shaft. It may succeed well.—[Ib.

A NOVEL TREE PROTECTOR.—A correspondent of the United States Gazette says:—We are indebted to Austria for a recent and happy invention. An individual of that country has thought of using the galvanic power for the preservation of trees and plants. He used for that purpose two rings, one of copper, and the other of zinc. Having placed one upon the other, he fixes them round the trunk of the tree, and if an insect but touch the ring of copper, it receives at once a galvanic shock, by which it is killed, or made to fall. The effect of this apparatus is equally good in dry or wet weather, and its action is unceasing.

NEW INVENTION.—Mr. John Y. Savage of this city has invented what is described as a perfectly secure method of fastening the doors of bank vaults and iron chests, by bolting them on the inside, and causing the bolts to be drawn at any future time, by a click or any other preferable motive power.

GLASS.—It is difficult to foresee to what perfection the manufacture of glass may be brought, and to what purpose the article may yet be applied. The balance spring of a chronometer is now made of glass, as a substitute for steel, and possesses a greater degree of elasticity and a greater power of resisting the alternations of heat and cold. A chronometer with a glass balance spring was sent to the North Sea, and exposed to a competition with nine other chronometers, and the result of the experiment was a report in favour of the chronometer with the glass spring.

PLANTING POTATOES IN ENGLAND.—The Fal-mouth Packet, says, "The planting of Potatoes in the neighbourhood of Newlyn, is now becoming very general, and the plan of first immersing the potatoe in a liquid compound of two ingredients, viz., one quart of coal tar with five quarts of water, has been adopted by many; while some few have still adhere to the old one of placing them under a good layer of common manure."

For the Ladies.

THE WIFE.

Oh, cherish her dearly,
And love her sincerely,
Be faithful indulgent and kind;
Make not a slight failing
A pretext for railing,
If such you should happen to find.
Oh, do not misuse her,
And never refuse her,
When proper her wishes may be;
And thy cost, care, and trouble,
She'll recompense double,
By the kindness she'll lavish on thee.

PERSONAL BEAUTY.

Let them, the Ladies, observe the following rules:—In the morning, use pure water as a preparatory ablution; after which they must abstain from all sudden gusts of passion, particularly envy, as that gives the skin a sallow paleness. It may seem trifling to talk of temperance, yet must this be attended to, both in eating and drinking, if they would avoid those pimples for which the advertised washes are a cure. Instead of rouge, let them use moderate exercise, which will raise a natural bloom in their cheeks, unmutated by art. Ingenious candour, and unalloyed good humour, will make them universally agreeable. A desire of pleasing will add fire to their eyes, and breathing of the morning air at sunrise will give them a vermilion hue. That amiable vivacity which they now possess may be happily heightened and preserved, if they avoid late hours and card-playing, as well as novel reading by candle light, but not otherwise; for the first gives a drowsy, disagreeable aspect to the face; the second is the mother of wrinkles; and the third is a fruitful source of weak eyes and sallow complexion.—[Lady's Book.

WOMAN.

The good government of families leads to the comforts of communities, and the welfare of States. Of every domestic circle, woman is the centre. Home, that scene of purest and dearest joy, home is the empire of woman. There she plans, directs, performs; the acknowledged source of dignity and felicity. Where female sense is most improved, female virtue most pure, female deportment most correct, there is most propriety of social manners. The early years of childhood, those most precious years of life and opening reason, are confined to woman's superintendence. She, therefore, may be presumed to lay the foundation of all the virtue and all the wisdom that enrich the world.

THE GOOD WIFE.

She commandeth her husband in any equal matter, by constantly obeying him. She never crosseth her husband in the sprang-tide of his anger, but stays till it be ebbing water. Surely men, contrary to iron, are worse to be wrought upon when they are hot. Her clothes are rather comely than costly, and she makes plain cloth to be velvet by her handsome wearing it. Her husband's secrets she will not divulge; especially she is careful to conceal his infirmities. In her husband's absence she is wife and deputy-husband, which makes her double the files of her diligence. At his return he finds all things so well that he wonders to see himself at home when he was abroad. Her children, though many in number, are none in noise, steering them with a look whither she listeth. The heaviest work of her servants she maketh light, by orderly and seasonably enjoining it.

A MOTHER.

Some females had met at the house of a friend for an evening visit, when the following scene and conversation occurred: The child of one of the females, about five years old, was guilty of rude, noisy conduct, very improper on all occasions, and particularly so at a stranger's house. The mother kindly reproved her. "Sarah you must not do so." "The child soon forgot the reproof, and became as noisy as ever. The mother firmly said, "Sarah if you do that again I will punish you." But not long after, Sarah did so again. When the company was about to separate, the mother stepped into a neighbour's house, intending to return for the child. During her absence, the thought of going home recalled to the mind of Sarah the punishment her mother told her she might expect. The recollection turned her rudeness and thoughtlessness to sorrow. A young lady present observing it, and learning the cause, in order to pacify her, said, "Never mind, I will ask your mother not to whip you." "Oh," said Sarah, "that will do no good. My mother never tells lies." The writer who communicated the above for the St. Louis Observer, adds "I learned a lesson from the reply of that child, which I shall never forget. It is worth everything in the training of a child, to make it feel that its mother never tells lies."

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.

PROVINCIAL EXHIBITION.

We give below the remainder of the List of Premiums, continued from page 55:—

Table listing exhibition prizes for various categories like 'Class II—Woolen and Flax Goods', 'Class I—Dairy Products and Sugar', and 'Artificial Oysters'. Each entry includes a description of the prize and its value in dollars and cents.

News Department.

HOME DISTRICT AGRICULTURAL SOCIETY SPRING FAIR AND CATTLE SHOW.

This exhibition took place in the enclosed field near the Jail, in this city, on Wednesday the 12th instant. The attendance was not unusually large, the day was fine, and some good stock was exhibited. Amongst the implements the only thing we observed new was the Reaping Machine of Mr. J. Bell, a wood engraving of which will be found on our first page. We hope the patronage Mr. Bell will receive from the farmers generally will amply reward him for the ingenuity and skill he has displayed in the production of such a useful and desirable labour-saving machine.

The following are the prizes awarded:—

Blood Horses.	
1st. John James, Cadmus.....	£3 15 0
2nd. William Chapman, Truiston.....	2 10 0
Draught Horses.	
1st. Nathaniel Davis, King Alfred.....	3 15 0
2nd. Nathaniel Davis, Nottingham.....	2 10 0
Saddle Horses.	
1st. Mr. Vanostrand, Yonge Street.....	2 0 0
2nd. Mr. Gubb, York.....	1 0 0
Draught Mares.	
1st. Mr. Wheeler, Scarborough.....	3 15 0
2nd. None entered.	
Yearling Colts.	
1st. Adam McCoy.....	1 10 0
2nd. Robert Smith.....	0 15 0
Yearling Fillies.	
1st. Thomas Sinder.....	1 10 0
2nd. Adam McCoy.....	0 15 0
Bulls, Three Years and Upwards.	
1st. Mr. Musson.....	3 0 0
2nd. Jonas Lewis.....	2 0 0
Bulls Under Three Years.	
1st. Mr. Taylor, James, Don.....	2 0 0
2nd. Wm. Armstrong, Markham.....	1 0 0
Bulls, Yearlings.	
1st. George Miller, Markham.....	1 0 0
2nd. Anthony Bowes, Vaughan.....	0 15 0
Cows, Three years and upwards.	
1st. James Taylor.....	2 0 0
2nd. Nathaniel Davis.....	1 10 0
Heifers under Three Years.	
1st. Anthony Bowes.....	1 0 0
2nd. Mr. Tunning.....	0 15 0
Heifers, Yearling.	
1st. George Miller.....	1 0 0
2nd. Mr. Tunning.....	0 15 0
Best Fat Spring Lambs.	
1st. James Taylor.....	1 10 0
2nd. J. B. Gracy.....	0 10 0
Subsoil Ploughs.	
1st. Mr. Hannah, Toronto.....	2 0 0
2nd. None entered.	
Ribbing Ploughs.	
1st. Ribbing Plough.....	1 0 0
2nd. None entered.	
Reaping Machine.	
1st. Mr. Bell, Toronto.....	3 0 0
2nd. Mr. Edmundson.....	2 0 0
Horse Hoe.	
1st. Mr. Hannals.....	1 0 0
2nd. None entered.	
Drill Barrows.	
1st. Henry Neil.....	1 0 0
2nd. None entered.	
Horse Rake.	
1st. William Jackes, York.....	1 0 0
2nd. None entered.	
Maple Sugar.	
1st. William Jackes.....	1 0 0
2nd. Mr. Ross, York.....	0 10 0
Clover Machine.	
None entered.	
Clover Seed.	
1st. Alex. Shaw, York.....	1 0 0
2nd. Sinder (recommended)	
Butter.	
1st. Mr. Ross, York.....	1 10 0
2nd. Thos. Sinder, York.....	0 15 0
3rd. J. B. Gracy, Scarborough.....	0 10 0

Judges for Horses.—Messrs. Bloor, Jos. Smith, and Elliott.
Judges for Cattle.—Messrs. Cook, Wheeler, and Mason
Judges for Imports and Manufactures.—Messrs. Musson, Bond, and Dew.

A premium of £1 5s. given for the best filly or colt from imported Clyde, given by the owner of Clyde, was awarded to Mr. Strong, of Vaughan.

The judges on Horses report, that although they have not awarded Mr. Blanchard's horse, King George, entered as a draught stallion, they beg to recommend him to the notice of agriculturists, as deserving encouragement; and also that they think Mr. Strong's horse will merit the attention of breeders, as a fine specimen of a Canadian Bred stallion.

W. B. CREW,
Assist. Secretary, H. D. A. S.

After the adjunction of the premiums, the members adjourned to Mr. Graham's, Farmer's Arms, Market Square, to discuss the merits of the viands, with which mine host had so bountifully spread his table.

E. W. Thomson, Esquire, occupied the chair, faced by the Secretary, George Wells, Esquire.

The cloth removed, the President of the Society, E. W. Thomson, Esquire, brought up the report for the past year, as follows:—

"The Society commenced the business of the year with a balance to their credit of only £38 4s. 10d., in the Treasurer's hands. At the Spring fair premiums were awarded to the amount of

£53 18s. 9d., while the receipts by subscriptions, entrance fees, &c., amounted only to £25.

In consequence of the first exhibition of the Provincial Agricultural Association having been held at Toronto, the Fall show of this Society merged in that, and to which the Home District Agricultural Society contributed £100 from its funds.

This sum, together with the several sums paid in aid of the Township Societies, with the contingent account, amounting to £13 4s. 3d. absorbed the whole of the funds, including the Parliamentary grant of £250—save £16 16s. 10d., which has been carried to the credit of 1847."

Mr. Thomson then continued:

In laying this statement before the Society, the officers of the Society think themselves justified in stating, that although our progress is not rapid, yet that it is still moving onward, and that a stimulus has been given to the agriculture of the District, calculated to produce the most beneficial results. It was conceived that one decided proof of the improved taste and desire for information is shown in the circumstance that two periodicals, published in this city, are now devoted to the cause of agriculture. In addition to our old friend, the *British American Cultivator*, we have now the *Canada Farmer*,—conducted with a considerable degree of talent, so far as he was able to judge. He thought it wise to encourage opposition in these as well as in many other things, as it could scarcely fail to elicit truth, or to correct the errors into which each might by possibility fall; (for they must recollect that Editors, like other folk, are not infallible), and by this means the great interests of the country would be promoted, which should be the aim of all.

Mr. T. then made some excellent observations on the necessity of improvement in our agricultural operations, and after some appropriate toasts were given the meeting broke up.

Trial of Stephen Turney for the Murder of McPhillips.

The murder was committed in Markham village, in November last. At the public examination of Turney, on his committal, we gave a full report of the proceedings. With one important exception, the evidence to-day was a reiteration of that which we published on that occasion. The additional evidence consists in the circumstance, that on the morning after the murder he was observed to go into a privy, where he remained about half-an-hour. Under the floor, and in one corner of the privy, on search being made, a little bag was found, which contained twenty-six dollars in silver, and some other money.

McPhillips was known to have money in his possession, but none, or a very trifle was found in the store after the murder. Turney, it was also proved, had spent a good deal of money in this city a few days after the murder. Then there was a statement of his own voluntarily made to Mr. Garnett, that he and another man had committed the murder. It was proved at the examination, before Turney's committal, that the other man charged by Turney, could not have been there at the time the murder was committed. This statement was probably made to implicate another and screen himself. The Council for the prisoner (Mr. Duggan) rested the defence on the absence of positive evidence, and contended that the fact of Turney having been proved to have made false statements, did not prove that he was guilty of murder.

The Learned Judge stated the case very clearly, repeating the whole evidence, and remarking upon the bearing of the facts. The Jury retired about five minutes, during which time there was the greatest anxiety in the Court to hear the result. Verdict, GUILTY.

There was probably not a single person in court who had the slightest doubt of the Prisoner's guilt. —[Examiner.]

THE CREDIT OF THE PROVINCE.

Baring, Brothers & Co. have, on the application of J. H. Dunn, late Receiver-General of Canada, denied the allegation in the memorial presented to Lord John Russell on Irish Colonization, that the former province of Upper Canada was once in default with its public creditor; The denial is in the following words:—

"We readily bear testimony to the fact that all the dividends on the debt of that Province have been punctually paid, and to the good faith with which that Province has invariably met its engagements."

FREE NAVIGATION OF THE ST. LAWRENCE.

"A rumour, we believe well founded one, was very prevalent in the city, yesterday, to the effect that the last mail brought instructions to the revenue department here to allow foreign vessels in ballast to come up to Montreal, to receive cargoes of flour, wheat, &c.; which under the recent temporary relaxation of the Navigation Laws, will be admitted into British ports on the same terms

as if in British bottoms. As American vessels can already come down to Montreal, from any western port, it is not improbable, we think, that we shall see a great number of American vessels here, and a very extensive carrying trade over the summer."—[Montreal Gazette.]

The Turnpike Toll Gates were sold, on the 7th inst. at Mr. Tobin's auction rooms, Montreal, and brought £6,492, as follows:—

Long Point Toll.....	£ 356
Quebec do.....	1,310
Cote des Neiges.....	1,615
Victoria Toll.....	301
Upper Laclue do.....	1,905
St. Laurent do.....	1,605

HOW TO AVOID THE PLAGUE.—"It is remarked of the *Persians* that though their country is surrounded every year with plague, they seldom or ever suffer any thing by it themselves, and it is likewise known that they are the most cleanly people of any in the world, and that many of them make it a part of their religion to remove filthiness and nuisances of every kind from all places about their cities and dwellings."—[Mead on Pestilential Contagion.]

FIRST ARRIVAL AT QUEBEC.—The St. Andrew from London which arrived at Quebec on the 8th, is the first arrival by sea this season.

Mr. Sheriff Thomas of Hamilton is about to visit England.

The News states that there are 150,000 bbls. of flour in Kingston awaiting shipment.

The American Baptist Home Missionary Society have appropriated for the purposes of the Society \$8,372 for the year 1847.

Father Mathew affords refuge to 300 houseless poor in Cork, nightly, every week.

On Monday last a man, named Douglas, of this Township, came to his death, by being thrown from his wagon. The deceased was in a state of intoxication.—[London Times.]

We learn from the Cobourg Star that the plank road from that town to Rice Lake is in active progress, and will be graded by the first of August.

Thomas Waters, Esq., of Port Dover has purchased the steamer *Experiment* and completed arrangements for placing her on the Port Dover and Buffalo route, as soon as she can be brought from her winter quarters on Lake Huron.

The Choctaw Indians have subscribed one hundred and seventy dollars for the relief of the distress in Ireland.

It is stated that several rich farmers intend to emigrate from Waterford.

An extract from a letter from St. Simon, dated 2nd May, published in last night's *Canadien*, states that much snow was still on the ground there; that the habitants, having exhausted their forage, had been forced to spare a portion of their grain to keep their cattle alive, notwithstanding, many had perished and were still perishing.—[Quebec paper.]

The semi-annual fair was held at Perth on Tuesday last. The day was fine. The show of cattle was small, and little or no business done.

His Excellency the Governor General has become Patron of the Young Men's Library Association of Hamilton.

The Dundas *Warder* states that a diabolical attempt has been made to fire Mr. Notman's buildings. Mr. Notman has offered \$200 reward for the discovery of the perpetrator of this outrage.

DUNDAS FEMALE ASSOCIATION.—The Dundas *Warder* says:—"In addition to the primary object (the assisting Missionary efforts), it is desired by the female members of Mr. Stark's Congregation to raise a handsome sum, through the toil of their own hands, to aid in the erection and completion of the New Free Church.

A meeting was held the other night in Dundas to draft an Act of Incorporation for that town.

Barker's Canadian Magazine has been discontinued.

An Agricultural society has been formed at Gaspé.

The Assizes for the London District opened on the 13th May. The Calendar is light.

The Spring is very backward in New Brunswick, and on the 11th instant, the snow in the woods was very deep. Potatoes were selling at St. John, for 5s. 6d. a bushel.

The steamer *Gleaner* is running from Bytown to Montreal.

THE RIDEAU CANAL.—Official notice has been given that this Canal will be closed from the 14th inst., until the 24th inst., for the purpose of making good the damage caused by the spring freshet.

It is calculated that 120,000 Germans will emigrate this year.

The price of passage from Troy to Whitehall on board the packet boats is 12½ cents.

At St. Lin, on Thursday last, the House of Mr. F. X. Queviller was destroyed by fire, and, we regret to say, that his wife and children perished in the flames.

A deserter from one of our regiments in Canada has been sentenced to death at Washington for the murder of a Portuguese, named Da Silva.

A new Steamer has just been launched in St. John. She cost £8,000, and is intended to ply on the River, at a speed of 16 miles per hour.

FIRE.—The tannery and dwelling house of Messrs. Bender, Niagara Falls, was lately destroyed by fire.

TRADE OF NEW YORK WITH CANADA.—The N. Y. Express says: "We understand that last week one thousand hogheads of sugar were to be shipped through the canal for the Canadas, together with large quantities of raisins and spices of all kinds. Two thousand packages of tea were also sold for the same market. Teas have been, for a long period, shipped over this route; but the large quantities of dutiable articles have been sent only since the passage of the bill of Congress, known as the 'Phoenix bill.' The only perfecting this law requires is, now, that the British Government ought to allow British goods to pass over the line on the same terms as those which are sent by the St. Lawrence.

HORSE POWER.—We are frequently asked the question, what is understood by a horse power? and why that way of reckoning power came to be adopted, and brought into general use? Before the power of steam was generally known and applied to mechanical purposes, horses were used to raise coal and other heavy bodies, and Mr. Mott, in his experiments, carefully compared the relative power of the different breeds of horses, and its average equal to raising 33,000 pounds one foot per minute, or what is equivalent to raise 330 pounds 100 feet, or 100 pounds 330 feet during that space of time, when attached to a lever or sweep of a given length. Thus, this afterwards became the standard of measuring power or force applied to mechanical purposes, and which is still retained in common use.—[N. Y. Far. & Mech.]

DEATH OF MR. HAGERMAN.—Mr. Justice Hagerman died at his residence in this city on the night of Friday last, at about seven o'clock. He had been ill for several months previous to the event. It is now currently stated that the Hon. W. H. Draper is appointed to fill the vacancy on the Bench.

The price of potatoes fell yesterday to 3s. in the Toronto market. The arrival of a schooner load was the cause.

Earl Cathcart has left Canada for England.

TRIAL OF HAMILTON.—James Hamilton was yesterday tried at the Court House in this city for the murder of Noah Heston, in the township of Toronto, in February last. The case occupied the court from ten in the morning to half past five in the evening. The jury left the box and consulted together about half an hour, when they returned a verdict of GUILTY. We understand that both Hamilton and Turney are to be brought up to-day to receive sentence.

We have just heard the solemn sentence pronounced, that they both be hanged on the 22nd of June next.

LATEST NEWS FROM ENGLAND.

The Britannia, which arrived at Boston on Monday morning last, brings news fifteen days later. There was a gradual rise of prices. The following is the correspondence of the New York Commercial Advertiser:—

LONDON CORN MARKET.

LONDON, Monday, May 3, 1847.

The arrivals of wheat are but small, and we have a good demand on the part of our millers and some demand for the Continent. The stands were generally cleared of English wheat at an advance of 3s. to 4s. per qr., and we had a free sale for foreign wheat at an improvement in value of 4s to 5s per quarter. Flour is 5s per sack and 3s per barrel dearer than this day week, and the best brands of American are worth 45s. (ten dollars) per barrel.

The arrivals of oats are small, and there has been a good demand for this article at an improvement of 1s. per qr. since this day se'night.

The crops are doing well—even potatoes are favourable.

O'Connell is sinking daily.

THE CANADA FARMER.—This is the title of a neat, and well conducted Agricultural paper, published at Toronto. It is published semi-monthly, and will, we think, be appreciated by those whose interests it is intended to subserve. Terms \$1.50 in advance.—[N. Y. Farmer and Mechanic.]

Toronto Market Prices.

May 22.	s.	d.	s.	d.
Flour, per barrel, 196 lbs.....	25	0	28	0
Oatmeal, per barrel, 196 lbs.....	24	6	25	0
Wheat, per bushel, 60 lbs.....	4	6	5	3
Rye, per bushel, 56 lbs.....	2	9	3	4
Barley, per bushel, 48 lbs.....	2	4	2	8
Oats, per bushel, 34 lbs.....	1	10	2	0
Peas, per bushel, 60 lbs.....	2	8	3	4
Potatoes, per bushel.....	3	0	4	0
Onions, per bushel.....	0	0	0	0
Tub Butter, per lb.....	0	6	0	7
Fresh Butter, per lb.....	0	7	4	0
Eggs, per dozen.....	0	4	4	0
Beef, per cwt.....	17	6	23	0
Beef, per lb.....	0	3	0	4
Pork, per 100 lbs.....	18	9	22	6
Hay, per ton.....	35	0	40	0
Straw, per ton.....	25	0	30	0
Timothy, per bushel, 60 lbs.....	5	0	6	3
Mutton, per lb., by the qr.....	0	4	0	5
Veal, per lb., by the qr.....	0	2	1	3
Turkeys, each.....	2	0	3	0
Geese, each.....	1	3	2	6
Ducks, per couple.....	1	6	2	0
Fowls, per couple.....	1	6	2	0
Chickens, per couple.....	5	3	6	5
Bacon, per lb.....	0	3	0	6
Hams, per cwt.....	0	0	0	0
Lard, per lb.....	0	3	4	0

Advertising Department.

Notice to Agriculturists.

JOHN BE. L., 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 Pressure 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 Lesslie, 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 25, 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.

Boot and Shoe Store,

4, CITY BUILDINGS, TORONTO.

SIGN OF THE GOLDEN BOOT.

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

JAMES FOSTER.

January 18, 1847. 1-

CROWN LAND DEPARTMENT,

Montreal, 10th March, 1846.

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

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 severally 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 ton Eagle Steel,
- 2 tons Camp Ovens,
- 2 tons Bellied Pots,
- 5 Blacksmith's Bellows,
- 60 Blacksmith's Vices,
- 15 "Hull's" warranted Anvils,
- 120 Sugar Kettles,
- 40 Potash Coolers,
- 10 boxes "Pouppool" Plates,
- 25 Box Stoves, 21 to 36 inches,
- 450 casks Cut Nails,
- 50 casks Wrought Nails,
- 20 casks Patent Pressed Nails,
- 35 casks Horse Nails,
- 40 casks Wrought Spikes,
- 40 casks Coal Cham,
- 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 Batting, Wadding, and Candle Wick.

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

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

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 Inisistent, 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, Grading, and Side Drains, so simplified that almost any person may keep a correct check as the work proceeds upon the quantity of work done.

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

Swain & Co's Hygiean Medicine,

OR, WORSDELL'S

Vegetable Restorative PILLS,

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

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

Authorised Travelling Agents.

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

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

STRIKING CURES.

WHO WISHES TO THROW AWAY HIS CRUTCHES!

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

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

To J. Swain & Co.

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

I remain, Gentlemen, yours respectfully,

MARGARET WILSON.

REMARKABLE TESTIMONY.

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

To J. Swain & Co.

Wellington Square, January, 1847.

GENTLEMEN.—I have been in the practice of using your Pills myself, and recommending them to others, and I have found them to be 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., Tyandeno, 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. WIXCOR'S CHILD was sick for three months, from Influenza, and was reduced to a skeleton, and all hopes of his recovery were given up. He was advised to take the Vegetable Restorative Pills, which soon effected a cure, and he is now enjoying good health.

CURE OF INFLAMMATION IN THE BOWELS.

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

CURE OF GRAVEL.

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

CURE OF DUMB AGUE.

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

CURE OF LIVER COMPLAINT.

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

WONDERFUL CHANGE.

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

CURE OF CHILL FEVER AND INFLAMMATION OF THE LUNGS.

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

WONDERFUL RESTORATION TO HEALTH.

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

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. 40, KING STREET EAST.

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

Drug & Medicine Business,

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

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

Toronto, 9th March, 1847.

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.

THE

Canada Farmer,

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

TERMS:

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

Advertisements inserted on the usual terms.

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

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