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Mr. J. C. Irving

THE CANADIAN FAMILY HERALD.

FIVE SHILLINGS PER ANNUM.]

Virtue is True Happiness.

[SINGLE, THREE HALF PENCE.

VOL. I.

TORONTO, SATURDAY, DECEMBER 13, 1851.

No. 2.

Poetry.

THE GATHERING TIME.

Exhibition of the Industry of all Nations, 1851.

They come! they come!
From the far-off isles, from the torrid plain,
They hasten to press o'er the billowy main,
They are borne along the deep sea's foam,
By the wild wind sweep o'er the wreck of Jone's home,
By the fierce tornado in his pride,
Lashing the waves to a fiery tide.

With the might of lions on their brow,
With the wealth that hath taught the world to bow;
The wealth of the mind in its glorious might,
The spoils of a thousand thoughts of light,
The rainbow gleams of the spirit's wings,
As it revels in bliss amid glorious things.

They have gathered the spoils of the earth and sea;
They have pierced the shrines of their mystery,
Unveiled the glory of earth's bright things,
Hid music flow from her long-sealed springs,
Till the world doth start from human lips
To hear of the bright apocalypse.

They have been to the depths of ocean's caves,
Mid the murmuring resonance of waves;
And many a pearl and jewel bright
Flash out in pride on the wondrous sight,
And the circling coronet hath caught
Its light from the gifts the waves have brought.

They have been to the depths of nature's shrines,
Where gleam rich treasures in hoary mines;
And the shapeless block as a human word,
Hath scattered its dross as a moulted bird,
And sprang up in beauty, and strength, and might,
As a spirit-wind had evoked its light.

They have trod the shores of a sunny land,
Where the feathery palm trees clustering stand,
And the bright coronet of the pale worm gleam
On the mulberry boughs, as a starry stream;
And a thousand fabrics rich and rare,
From the golden threads grow brightly fair.

They have been to the heights of the sky,
In their lofty pride, to Italian skies;
And the sculptor's hand hath wrought its might
On the polished marble's stamless white,
Till the soul could see in its spirit's gleam,
The life of his dearest, proudest dreams.

And the forests have yielded their lordly dower,
And the isles that afar their fragrance shower,
Earth, air, and sea hath their tribute brought
To swell the stream of the wondrous thought,
That seeks in our own loved land to shine
The world's great soul, as a thing divine.

And hail to the workers on land and sea!
All hail as they meet in the land of the free!
The voice's gifts on the shrine be laid
Of the holiest One, in the mercy shade;
And earth's hoariness to Him be given,
Who on human souls sheds powers of heaven.

Literature.

WHY IS THE SEA SALT? FROM CHAMBERS JOURNAL.

Why is the sea salt?

What a question!—and what a time and place for it! You never before sat on turf so green as this, Marion—bordering the yellow sands of a bay so small, so delicately curved, so beautiful, so lonely. See, on one hand, but too far off to disturb the idea of solitude—yet near enough to leave unbroken the ties that connect us with the humanities of life—is a little, rustic, old-fashioned town, clustering itself upon a peninsula which stretches eagerly out into the sea, as if determined to obtain by right the name of an island, which it only enjoys by courtesy. On the other hand are the green, swelling shoulders of the bay, behind which we see rising in the clear

air some flimsy smoke, which tells of the noisling place of that beautiful village, with the most beautiful of names—Aberdour. Behind us, secluded and hemming in our little bay from the world, solemn and austere, as the convent walls that enclose some charming nun, is a broad belt of forest, traversed by hermit paths, leading to hidden fountains, holy enough to wash away from the soul the foulest stains of the world. And before us, Marion, look at that expanse of calm blue water, whose ripples kiss the yellow sand at our feet, but whose farther edge is lost in a silvery haze, above which rise dim towers and castled steeples, and beyond them shadowy precipices, and a towering seat where King Arthur himself may seem to look down from his throne upon the world of romance!

But why is the sea salt? Tush! Because it licks up the saline particles of the earth it washes; or because there are mountains of rock-salt resembling colossal lumps of sugarcandy in its depths, which melt so gradually that they and the world will be used up together; or for any other nonsensical reason which the ignorance of science pleases. This is not a time or place for such fables. But if you will have knowledge, let us take it from the men of old, to whom truth was handed down by tradition. How should we know so well as they who were born so much nearer the event? The venerable Edda tells everything in a page that modern philosophy is breaking its heart to get at. It does not the light, and boil it, and evaporate it, and pretend to discover the secret from the dregs, like an old woman reading a teacup. It relates the circumstances historically, naming distinctly the individuals and the places, and explaining the reasons and the results. What more would you have? Nothing is wanted on the part of the learner but faith. Listen believingly, and you will understand in five minutes how it came to pass that the water of the sea turned salt.

Before the reign of Frodi, a near descendant of Odin, the ocean was fresh; but that powerful King of Gotland (called in modern times Denmark) was fond of novelties and experiments. In his dominions there were two millstones, the upper and the nether, forming an engine of extraordinary power, if it had been only possible to set it going. No man, however, was strong enough to turn it; and steam being not yet invented, nor even water or wind power, they stood where they were—vast, ponderous, and motionless, a marvel to the country.

The owner of this mill, whose name was Hengikiapt, which signifies Hanging-Chops, presented it to King Frodi, telling him that it possessed the property of grinding out—grist or no grist—anything and everything ordered by the grinder. But the gift was a mere curiosity, only fit to be put up in some public place to be looked at, and wondered at gratis; for nations had not got the length of charging themselves so much a head for seeing their own monuments. So Frodi was little the

better for his acquisition, till he had the good fortune to stumble upon the only individuals in the world who could act as millers to these extraordinary stones. This occurred when he was on a visit to the king of Sweden, at whose court he obtained two female slaves, Femia and Menia by name, who could do,—nobody could tell what they could do.

As soon as he got home he tried them at the mill, and, lo! round went the huge stones, as if by a hundred horse power.

'Grand Gold!' cried he, and Gotland was at once a California.

'Grind tranquility,' and every man took the pledge, and subscribed to the Peace Society.

'Grind good-luck,' and Frodi might have been taken for a colonial minister, so prudent, so rational, so prosperous did he become all on a sudden. But, alas! the more he got out of his charmed mill, the more he wanted, 'Grind this! grind that, grind the other thing!' was his constant cry. 'Grind, grind!' when he lay down to rest at night; 'Grind, grind!' when he rose in the morning. He made a rule at last that the female slaves should never rest at one time longer than a cuckoo does between his notes. When sang the female slaves the famous Grotto song which is still known in Scandinavia. It described the services they performed, the ceaseless fatigue they endured, the sleep that every now and then overpowered them at their task, the pain with which they started from a the cuckoo's song.

But Frodi was inexorable in his covetousness. 'Grind this! grind that! grind the other thing!' cried he. 'Grind—grind!' And at length the female slaves, finding remonstrance vain, and warning unheeded, ground war and distress. That very night there landed in Gotland a sea-king whose name was Geysing, who marched direct upon the palace of Frodi, plundered it of its treasures, slew the unhappy king himself, and carrying off the mill and its slaves, set sail with his booty.

Served him right? True, Marion. The lessons of history are never to be despised. For my part I would have been satisfied with grinding gold, peace, good luck—

Beauty, fashion, power? True; and health, strength, swiftness—

Polkas, operas, dress? Yes; and love, smiles, kisses—

But why is the sea salt? We are just coming to that. Geysing was not satisfied with his treasures any more than Frodi; and he bethought himself of a very valuable commodity which the Phœnicians—who probably dug it out of the earth—were accustomed to exchange with the British islanders for the produce of their country. 'Grand white salt!' cried he. And the slaves laboured, and the mill turned, and the stream of white salt filled the hold. At midnight they asked their taskmaster whether he had enough: but he ordered them to go on grind—grind—grinding; and by the time they reached the Pent! i

Firth the white salt covered the decks, and began to rise upon the masts. The cargo was too heavy. The ship dipped, and the water she swallowed made it heavier still. They were now in the middle of the Firth. The sky was black as a pail. A low moaning wind swept over the sea. Geysing was frightened; but he thought she would hold a little more. And so she did; but that was the last. She began to go round and round like the mill, and then settled heavily down in the dark waters, and as she disappeared beneath the surface, the grinding still went on, and the unearthly song of the slave women mingled with the cries of the drowning king.

Why is the sea salt? That is why the sea is salt. The mill works to this day. If you will listen at the whirlpool called the Swelchie in the Pentland Firth you will hear its rumbling amid the roaring of the eddies, and understand how the product of that wonderful mill has by this time salted the whole ocean.

This is the only true original legend of the salting of the sea, the others are counterfeits, manufactured by unprincipled monks in the middle ages, who ought to have been prosecuted.

A specimen of their manufacturing, Marion?—of such trash! You are as exacting as Froth or Geysing either, but if you will have it, here goes.

Once on a time there were two brothers, one rich, and one poor, and when it came to pass that all men were preparing the Yule feast, the poor brother found himself without a mouthful of food in the house or a penny to purchase it. In this extremity he laid his case before his rich brother, and he sought him to give him something, that he and his wife might have wherewithal to make their Christmas meal. The rich brother looked sourly at him, and seemed about to refuse, but at length he tendered him a shank-bone of ham, on condition that the other would do whatever he should desire of him. The promise was made; and then his benefactor, giving him the shank-bone, told him with a bitter smile to go to—

Hush, never mind! Very well. The poor brother went away, and as he was about to start for the road to hush! The place was not so far off, however as he thought, nor the way so difficult to find, and he met with many obliging persons who were very willing to direct him. When the shades of evening began to descend, he reached an immense palace illuminated from the top to bottom, and he said to himself, Surely this is the place! He was right. For in a shed close by there was an old man with a long white beard splitting wood for the Yule feast, and he told him, in reply to his question, that that was assuredly his destination.

'Go in boldly said he, 'for you are not empty handed: you will find many there anxious to buy your bone, and to give a good price for it; but take care that you accept of nothing in exchange but the mill behind the door.'

The poor man accordingly knocked, the door flew open, and a whole legion of the inmates crowded round him bidding eagerly for his bone.

'Alas!' said he, 'it is the only thing I have that I can call my own; and it was intended to furnish a dinner for my wife and myself to-morrow. But if you must have it you shall, provided you give me in exchange that hand-mill behind the door.'

The gentlemen were at first surprised, then indignant, then grieved. They were free traders. It was their business to buy in the cheapest, and sell in the dearest market they could, and although determined to have the shank-bone, they were loath to make so valuable a return. The poor brother, however, was as resolved as they; and the end of it was that the arrangement he insisted upon was agreed to, and he carried away the mill.

'Now what shall I do with this?' said he to the old man as he passed.

'Make it grind your dinner, or anything you

will, replied the old man.

'And how am I to stop it when I have done grinding?'

'That way!' and he showed him the secret.

It was late ere he got home with so heavy a load, and placing it on the table, he sat down exhausted and began to wipe his brow.

'And is this all you have got?' said the wife, uncertain whether to scold or to cry. What has detained you so long? Did you not know that I had not even two chips of wood in the house to lay across the hearth to boil the Yule pudding? What is the use of a mill with nothing to grind? In reply to this, her husband merely turned round the mill ordering what he wanted, and first came out a pair of candles, then a tablecloth, then meat, then beer, and in short everything requisite to furnish a feast.

The wife was amazed, and questioned and cross-questioned her husband about the miracle, but the difficulties in her pursuit of knowledge were insuperable. All his conversation was addressed to the mill, and it was in the words of Froth—Grind this! grind that! grind the other thing! In three days they had a whole household of comforts and luxuries, and they then sent to invite their friends and relations to a banquet. When the rich brother came he was ready to expure with envy.

Where in all the world have you been? said he.

'I have been behind the door!' replied his brother, and that was all he could get out of him. The other importuned him to sell his mill, coming day after day, and increasing his offer, as he saw it grinding all manner of things; till the possessor, tired of turning it, appeared to relent, and at length sold the wonderful mill for a large sum of money.

It was night when the mill was delivered to the rich brother, who on the following morning told his wife to go out and spread the hay after the reapers, promising to prepare breakfast himself. Her back was no sooner turned than he shut the door, placed the mill upon the table, turned it violently round, and trembling with expectation, commanded it to grind herrings and till every dish in the house was full. Then the stream overflowed the table, and then the floor; the unskillful miller turning the handle in every possible way to endeavour to stop it. All was to no purpose. On flowed the torrent; and when, afraid of being drowned in the kitchen, he rushed into the parlor, it followed him there, and he had barely time to escape by the window, pursued by an ocean of breakfast. He never stopped till he reached his brother's house.

'Take it back!—take it back!' cried he, 'or the whole parish will be suffocated in herrings and porridge!'

'What will you give me if I take it back?'

A bargain was made; and the cunning grinder, who had foreseen this result, was now a rich man, and had the mill to boot. He built him a house—or rather a palace—on the sea shore; and in the wantonness of his wealth covered the walls with plates of gold, and it shone far out to sea.

Among the mariners who sailed in near the shore to see this marvel was one whose trade it was to peril his life in carrying through dangerous seas the rock-salt that was then so valuable a commodity.

'Can your mill work salt?' said he.

'That it can,' replied the man of the golden palace. Whereupon the mariner bade higher and higher for the treasure, till its owner reflecting like a sensible person, that he had already a superfluity of the good things of the world, and that a mill manufactured in a certain place of evil repute must at one time or other work evil to the grinder, consented to sell it for a very large sum of money. The new purchaser, overjoyed at his success, and laughing in his sleeve at the simplicity of the seller, carried off his prize at once, and was no sooner on the open sea than he set up the wonderful mill, and turning it quickly round, commanded it to grind salt. I need not

add, Marion, that it worked only too well, that it continued to obey long after the bones of its luckless owner were bleaching at the bottom; and that at this moment it still keeps grinding, grinding, with such effect that notwithstanding the rivers of fresh water it receives, the sea remains salt, and will remain salt for ever.

Not so good as the other? No more it is; but there is a gleam of truth here and there in it for all that. Do you not think, dear friend, that there are times and places when the faith is young and strong—when giants are not monsters, fairies not preternatural, and talismans not impossible? Do you not sometimes feel as if, like the goddess of old, you had bathed in the fountain of Youth, and returned to the thoughts and associations of your unwithered years? Believe me that fountain is no dream of poetry, no invention of romance. Its waters float in the air you even now inhale, they cool your fevered brow, they reanimate your drooping heart, and, seen through this enchanted incantum, the lovely picture before us is a realization of the visions that once haunted your young bosom of the distant world. But a shade has fallen upon the scene, a stronger breath ruffles here and there, as if with a dream, the slumbers of the Firth; the distant city looms out more sternly from the opposite shore; the clustering houses on the left have a colder, sharper look, and the filmy smoke of Aberdour rises in heavier masses from the hill. Yes our cloudland is descending, and we with it—but slowly, gently—to mingle with the material earth. Come, our way lies through these forest-paths. But as we go, let us pause every now and then to enjoy a farewell glimpse of the view through the opening trees, to inhale the rich breath of the hawthorn where it hangs over our path, to listen to the trickling waters by our side, and to that faint song from some viewless chorister of the grove,

'And watch the dying notes, and start, and smile!'

But now, Marion, our descent is complete, we have fairly reached the surface of this breathing world, and we must forego all these enjoyments to quicken our pilgrim steps.

Why so? Because we shall otherwise be too late to witness the coronation of Dumfries.

THE CANADIAN FAMILY HERALD.

TORONTO, SATURDAY, DEC. 13, 1851.

To Our READERS.—Persons who received the first and this number, and do not return them, will be placed on the list of our Subscribers.

PROSPECTUS

OF

THE CANADIAN FAMILY HERALD.

Price One Dollar per annum.

At present there exists not amongst us any paper so exclusively divested of party politics, and at the same time so general in its bearing upon the individual interest of the body politic, as to make it really a family paper; acceptable alike to the merchant and the mechanic, the artist and the agriculturist.

To supply this desideratum it is proposed to establish a quarto weekly paper, to be published in Toronto, entitled THE CANADIAN FAMILY HERALD, in which Agriculture, Art, Science, and Literature, in their latest discoveries, their most recent inventions, their gradual development, and their present and prospective social benefits, will be concisely

and comprehensively unfolded, from the most reliable sources, thus presenting a Family Paper in which all the members of the household can find something suited to their individual tastes and capacities.

Mechanics' Institutes, Public Libraries, Mutual Improvement Societies,—in short, every institution which has for its aim the good of man, will be warmly supported, as, in our rising country, too much attention cannot be paid to the inculcation of sound moral precepts, so that the youthful mind may be thoroughly stored with useful knowledge.

Now Publications will be reviewed with candour, and the various departments of the paper will be all carefully arranged under their respective heads.

The size chosen for the Herald is convenient for binding, while it will be furnished at a price within the reach of all classes of the community. Interesting European News will be attended to, and no expense will be spared to make it a most agreeable and instructive family paper, worthy the patronage of all who rejoice in the extensive diffusion of useful knowledge.

To ADVERTISERS.—The Herald will be found a valuable medium for advertising. Its cheapness brings it within the reach of all. Its selections in Literature will make it always a welcome guest in the family circle; while its contributions, in Science and the Arts, will make it the companion of the Artizan and the Agriculturist, so that merchants and business men generally, will find it to their interest to announce themselves occasionally through its columns.

ANSWERS TO CORRESPONDENTS.—This is a feature almost exclusively peculiar to a few English publications. It is found to contribute very successfully to the interest of the reader, and is the means of affording much useful information. We have made arrangements, by means of which, this branch will be carefully attended to, and all enquiries answered so far as practicable so to do.

Education.

Education, a subject so often dilated upon, sometimes with slippancy, at other times with gravity, is looked upon by many, as if it were consummated in the mere learning to read and cipher. As if that that sacred aphorism, Train up a child in the way he should go—had no higher signification, than to give him the power to read at pleasure the lucubrations of his seniors, or to exercise his mind in grappling with the science of numbers. It has, however, a deeper and more important meaning, and one which, if not comprehended in what is given as education, leaves the pupil at the close of that career in possession of a power, alike dangerous to himself and his fellow beings. The gardener understands thoroughly the meaning of the word, Train.—He does not content himself with rearing his stocks, and grafting upon them that kind of scion, for which he wishes his trees to be characterized; but he stirs the earth at their roots, prunes the luxuriant branches, fosters, and quickens the backward shoots, and cleans their rind from all the insects, and impurities which would be fatal to their fructification. How different with the human plant! Many years ago

while conning the Primer, an advanced class was reciting a most pathetic lesson in poetry, and so deeply affected were two of the class, a girl, and a boy that they burst into tears at the touching recital. Who would have ventured to guess the prodigion of the venerable master, that these pupils, if they lived, would grow up to be ornaments to society. But, alas! for the distance of human vision. Ere a dozen years had rolled over their heads, the former had reeled from the paths of virtue, the latter was condemned to a dreary imprisonment for violating the laws of his country. Their education might be complete, but surely the training was lamentably deficient. The following extract from a Cincinnati paper brings to remembrance that distant time—

Some twenty years ago, there dwelt in Cincinnati, two little boys, whose father's houses adjoined each other. These two boys were considered bright, likely children, and so much did their dispositions harmonize, that they were almost inseparable companions—they played together, they read together, and it was the opinion of all the neighbours that they would make great men. Such was their steadiness and attention to their books, and their uniform good behaviour. But as these boys began to grow up, the neighbours saw the difference that is manifested in children's nature, simply by the example and precepts to be derived from their parents. One was the son of steady Quaker parents, who were at great pains to instil sound precept. The other's parents were indifferent people, with but little education, and consequently had but little conception of its vast benefits. The one knew and profited by the advantages of good society; the other, being allowed to follow the immature impulses of youth, fell into the company of young men of the same habits.

Time passed on, and these young men had passed their legal age by half a dozen years.—The son of the Quaker parents is one of the first editors in this country. He is considered the ablest writer in the state in which he lives.—He has received a high literary degree from one of our Universities, and is now engaged, at the request of the first botanist of the age, to write for his new work upon the Botany of the West. He is the editor of the *Davenport (Iowa) Gazette*.—The other young man was recently hung for murder.

What a lesson is taught us in the history of these two boys! The one who has suffered the most ignominious of deaths, possessed as fine intellect as the other. We knew Howard Slaughter well. A brighter or more amiable boy never lived, but bad raising started him on an evil way, and alcohol finished it. His last words on the gallows were these.—"Beware of liquor; it has brought me to this!"

Toronto Mechanics' Institute.

On the evening of Friday se'ennight, the Rev. Dr. Burns delivered a Lecture in the Mechanics' Institute on the "Dawn of English Literature." The lecture displayed deep research and minute acquaintance with English Literature in its various phases. Its composition showed that the Doctor was no stranger to the beauties of style. The opinions of those who trace the early literature of England to the Druids were considered, and reasons given for distrusting the justice of those opinions, while on the other hand, the notion of an exclusively Anglo-Saxon origin of English literature was shown to be untenable. The influence of Roman arms and arts was sketched,

and historical facts adduced to prove that the possession of England by the Romans for a lengthened period was highly favourable to progressive civilization and literature. The Saxons, he said, brought with them into England many institutions that were valuable, and to that people might be traced the rise of the national character of Britain. Notices were given of such men as Gildas, Bede, Alwin, Nennius, and others, distinguished for the learning of the period, and particularly of Alfred the Great, the patron of learned men and the student of the liberties of his country. The origin of the Universities of Oxford and Cambridge was alluded to, and the influence of these rising seminaries on the genius and mental character of the country. The Norman conquest was shown to have been favourable to the literature of England, and some important views were held out as to the blending harmoniously of the Norman, Saxon, and Roman elements, in the production of one majestic whole.

The era of Chaucer was noticed as that of the "morning star of English poetry," and he considered the influence of the Honours and works of John Wicliffe, the morning star of the English Reformation, as being salutary in no common degree. The circumstances of resemblance and of contrast betwixt these two eminent individuals were marked, and an estimate formed of each and of both. Specimens were given of Anglo-Saxon and early English writing, and the English version of the Scriptures by Wicliffe, and the works of Sir John Mandeville, furnished some curious proofs of the rapid progress which the English language had made.

RECENT INVENTION.—Messrs. Brown & Childs of this city, have sent us a pair of newly-invented foot-holds, which are well calculated to supply a want experienced by all the Representatives of the old sandal. It consists of a sole, made from a peculiar preparation of Goodyear's India Rubber, which can be secured in the same manner as leather—studded with nails, of a peculiar make which prevent them slipping, and is kept on the shoe or boot by a toe loop and an elastic strap which goes round the heel. It can be put off or on with the greatest ease. There seems little doubt that such an invention will be generally appreciated, as it will aid very materially in enabling its wearer to maintain due equilibrium on a slippery pavement. Of course they are manufactured to suit ladies and gentlemen.

Arts and Manufactures.

DISCOVERY IN THE MANUFACTURE OF LINEN.

A discovery has been recently made in the manufacture of linen, the staple production of Ireland, the importance of which it will not be easy to over estimate. This invention is in course of development in the north of Ireland, where it first came to light, and will mark the date of a new era in linen manufacture, scarcely less valuable than the invention of the Jacquard loom. One of the greatest difficulties hitherto to be contended with in the process of linen manufacture, is the great length of time required to bleach the woven fabric, and finish it for the market. By the method now in use it requires three months to bring the manufactured material to its proper colour, and to that exquisite finish which Irish linens always exhibit. This great impediment to progress,

is by this discovery, likely to be almost entirely removed, by the discovery of a process, by means of which linen goods can be bleached and finished in from ten to fourteen days. The great value of this discovery rests in the fact that the quality of the article is not in the slightest diminished. Of this discovery the *Belfast News Letter* says: We are assured that so far from this new process tending to injure the fabric, or deteriorate its commercial value, it greatly improves the quality of the article, being unattended with any of the injurious effects produced by the old process. Of the nature of this process it is not within our power to speak. We can only speak with the utmost certainty and confidence of its effects, and of the great advantages it will confer upon the community. By improving the quality of linen fabrics, it will place them once more far ahead of the competition of cotton goods and cotton mixtures, which has latterly run them so close; by the unloading of so large an amount of slumbering capital, it will give great activity to the linen trade, afford a larger margin of profit, and, by consequence, a wider field of employment; while it will also have the effect of enabling the manufacturer to supply his goods to the public at a cheaper rate, thus conferring a lasting and general benefit upon the country at large. In short, by its means an entire revolution in the condition of the trade will be effected. The time, too, is most propitious for the development of this astonishing discovery and its practical operation on the largest scale, for we learn with the most sincere pleasure that the advances from the East and West Indies, as well as from South America, are exceedingly favorable for this particular branch of our native manufactures, and we have no doubt that we shall soon have a start in the supply of linens to these markets, which will enable us to distance all competitors.

Messrs. Woodworth and Mower of Boston have recently patented a machine for making bricks from dry clay. This machine turns out about three thousand bricks per hour, beautifully finished, and as smooth as polished marble, so that not only is a great saving of time effected but a quality of article is produced which will display itself in the neatness of finish which will be effected in our buildings, if such machines are brought fully into operation. It is the result of three years close application and hard study on the part of the patentees, and is considered a most important invention. The machine and the clay pulverizer, are operated by a steam engine of twenty horse power. The clay is first dried, then ground, passing between heavy rollers, then screened or sifted, and passed into the machine in a uniform state, where it is subjected to the immense power of the machine, and a beautiful, perfect face, brick is produced, almost as smooth and dense as polished marble. The bricks are taken from the machine and immediately set in the kilns ready for burning, thereby obviating the necessity of spreading on the yard to dry before burning, as well as injury or loss from wet weather. By this process, a superior facial brick can be produced, at less expense than the coarsest common brick by the old method.

ROBINSON'S SEWING MACHINE.

In *Appleton's Mechanic's Magazine* for November we have a very lengthened and explicit explanation of this instrument illustrated with a variety of diagrams. The imperishable "Song of the Shirt" renders everything of the deepest interest which has to do with the substitution of

some other agency for that interminable Stich, stitch, which has blanched the cheeks of so many unfortunate human beings. This machine differs from others in use, by the combination of two needles, two thread guides, and a cloth-holder, made to operate together, and also in having the needles with springs. The machine is very ingenious, and will perform what is generally termed stitch and back stitch sewing, or ordinary stitching. It would be difficult to convey an idea of the nature of this instrument without the aid of a pictorial illustration, but its operations may be thus described. During each back movement of the needle through the cloth, the spring of the needle is closed down by one of the mouth-pieces or pressers, immediately before the said spring is drawn back through the cloth. The mouth-piece or presser becomes necessary when the needle is formed with a spring, but when this needle is used, such a mouth-piece or presser is not essential to the operation of such needle. In sewing with this machine we do not make use of a continuous thread, unwound from a bobbin, as do those machines which produce a chain-stitch, but we make use of a short piece of thread, such as a person uses when sewing by hand with an ordinary sewing needle; and on commencing to sew we simply pass one end of the thread between a spring and the arm, against which said spring bears, and we extend the thread and lay it over the back needle after it has passed through the cloth, and in such manner as to enable the needle to receive the thread into its eye when the needle is drawn back. The said needle, during its retraction, will draw the thread through the cloth and the back thread-guide, and continue thread, which was not held by the spring as before mentioned, has been drawn entirely through the cloth and the inner thread-guide. The front needle in the mean time has advanced and passed through the outer thread-guide, and entirely through the cloth, and to the extent of its motion inward. During such advancement a lateral movement of the inner thread-guide towards the right causes the thread to be laid over said needle. The needles next are moved forward, and during such movement the thread passes into the eye of the outer needle, is drawn through the cloth and the front thread-guide, and entirely out of the other needle, which passes through the cloth as before, and under the thread, which, by the lateral movement of the outer thread-guide, has been laid over it, ready for the next movement of the needle. The circular motion of the cloth-holder is to be regularly intermittent, each movement of it being a sufficient distance to produce the length of each stitch, as required to be made in the cloth. In order to produce the stitch and back-stitch or "forward and backstitch sewing," the two needles must not be arranged in the same vertical plane, but they should be arranged respectively, in two vertical parallel planes, situated, or supposed to be, at a distance apart from one another equal to the length of a stitch, the outer needle being placed on the right of the other. The cloth-holder is to be moved forward only during each outward movement of the needle-frame, and such motion should take place while the needles are out of the thread-guides or cloth. The machinery which produces the intermittent circular motion to the metallic hoop or cloth-holder is as follows: The upper surface of the cloth-holder has a series of ratchet teeth formed entirely around it; one or more pawls or ratchets, jointed to the lower end of the lever, works in to said ratchet teeth. The said lever moves upon a fulcrum and is moved in one direction by the action of the cam, and in an opposite direction by a retracting spring affixed to it, and to a stationary arm.

Agriculture.

DRAINING BY MACHINERY.

In our last number we adverted briefly to the invention of a machine for cultivation, and to the advantage which the laboring class would especially derive from the discovery, and perfection of art, when the real destiny of man has been thoroughly studied,—when it is believed that the greatest good to society and the highest comfort to man individually, will be promoted by a mutual interchange of friendship, and by the sincere determination of every man unceasingly, and energetically, to desire the public weal. The peaceful times in which we live give a zest to existence, and an impetus to improvement in every department of life, so that scarcely have we been pleased with some great discovery than another is announced which tends to cast its predecessor in the shade. A machine has been invented by Mr. Fowler, of Fowler and Fry of Bristol, England, for the purpose of draining land, and several successful experiments have been made with it, for the purpose of testing its very superior advantages, both as to saving of time and money—when compared with draining by manual labour. The machine is formed by two horizontal iron frames, nine feet long, placed two feet apart, supported at one end by three wooden rollers, of one foot diameter, turning on axles; at the other end by two cast wheels. At the end nearest the cast wheels, and between the two frames, there is supported a perpendicular plough or coulter of iron, seven feet in height, ~~the top of which is~~ and three quarters of an inch thick, the side of this plough or coulter, intended to cut and drain, has a sharpened edge, the other side is formed into a rack which can be raised or depressed at pleasure, by a plow or which working into it, so that the plough is capable of being placed in the ground at any required depth. At the bottom of this upright plough or coulter is a socket, in which is placed a lengthened horizontal cone or plug, the point or apex in the same direction as the sharp edge of the coulter; at the back of this plug is fixed a rope, upon which is strung as many drain pipes as its length will allow; a simple process is adopted to add fresh coils of rope when more pipes are required. A hole is then dug in the ground, say two feet deep and a foot wide, as in the present experiment, gradually sloped at the back, so as to allow the rope with the pipes to enter freely, and the coulter is placed upright in the hole, with its sharp edge and the point of the plug in the direction the drain is to be formed; at the end of the horizontal iron framing, farthest from the coulter, is fixed a horizontal pulley, through which a wire rope is passed, fastened at the other end to a capstan, placed at the opposite extremity of the field, up to which the drain is to be formed. Four horses were harnessed to the capstan, which they turned with very trifling exertion, thus drawing the coulter through the land, the plug forming the drain, and the ropes with the pipes following. The time occupied in laying the nine chains of piping was 33 minutes, and the surface land was not more disturbed than if a knife had been drawn through it; when the coulter was drawn up to the capstan, it was raised out of the ground, the rope disengaged from the plug, and the horses hitched to the other end of the coils of ropes, which they immediately drew out, leaving the tiles accurately placed as was ascertained by digging down to the drain. Another drain was then immediately formed in the same manner, at a parallel distance of about fifteen feet, the capstan still in the same position. The east-

mated expense of draining land in this manner, independent of the cost of this is about fourpence a chain. From 6000 to 7000 feet can be drained in one day at the expense of about 30s.

MOISTURE.

The importance of moisture to vegetation is obvious to every one. Water constitutes a large proportion of every plant, and is the vehicle of the food of plants held in solution. Hence, without an essential ingredient, they must either become stunted in their growth or perish. In dry weather, when vegetation seems at a stand, no sooner do showers of rain fall, than a rapid growth of every kind of herbage, or of corn, immediately succeeds, even on poor dry soils, where otherwise, however well manured, vegetation would make but slow progress.

The quantity of rain that falls annually in any country, is a very inferior consideration, when compared with that of the general and equal distribution of that quantity throughout the several days and months of the year. A great quantity at the same time, is rather hurtful than beneficial, whereas those moderate, but golden showers, which regularly fall on a soil calculated to receive them, are real sources of fertility. It is by this that the character of a climate, whether wet or dry, is chiefly determined, and the operations of agriculture are principally influenced.

The utility of moisture, with a view to vegetation, is, in some respects, peculiarly remarkable. Thus in wet climates, as on the western coasts of England, Scotland, and Ireland, crops of grain and potatoes are found to exhaust the soil less than in dry situations. Oats, in particular, are impoverishing in a greater degree in dry climates than in moist ones; and the former should be sown much earlier than they usually are, that, in their early growth, they may have all the benefit of moisture. It has been remarked also, that a soil of the same species, not retentive, will be more productive in a wet climate, than a dry one. Hence, on the western coast of England, as in Lancashire, where the quantity of rain that falls annually, varies from forty to sixty inches, a silicious sandy soil is much more productive than the same species of soil in the eastern districts, where seldom more than twenty-five to thirty-five inches of rain fall in a year. In wet climates also, even wheat and beans will require a less coherent and absorbent soil, than in drier situations. At the same time, weather moderately dry, is the most favorable to a great produce of grain, and wheat in particular is most abundant, if no rain falls when it is in blossom.

The disadvantages of a wet climate to a farmer, more especially if accompanied with a retentive soil, are very great. It is calculated, that in the richest district in Scotland, the Carse of Gowrie, there are only twenty weeks in the year fit for ploughing; whereas, in several parts of England, they have thirty weeks, and in many cases more, during which this essential operation can be performed. Hence ploughing must be much more expensive in the one case than in the other.

The season of the year in which rain abounds, is likewise of much importance. An excess is prejudicial in any season, but is peculiarly so in autumn, when it often lodges the grain by its violence, or, else by its long continuance, prevents it from being properly harvested. The hopes of the husbandman are thus blasted, and the fruits of his toil and industry are frequently diminished, and sometimes entirely lost.

Besides rain, dews have a great effect in furnishing plants with moisture; and, indeed, without their aid vegetation, in warm and dry climates, could not go on. Even in temperate regions, dews are beneficial. In Guernsey, on the coast of Normandy, the autumnal dews are singularly heavy, so much so, that in the middle of a hot day, the dew-drops are not quite exhaled from the grass. From this moisture the after-grass receives great benefit. Dr Hales estimated the quantity of dew that falls in one year, at

three and a half inches. Mr. Dalton at nearly five inches. In this matter, however, it is not easy to be correct.

MEANS OF ASCERTAINING THE NATURE OF A CLIMATE.

In this respect the farmer in modern times, has many advantages which his predecessors wished for in vain. The progress of science has given rise to many new instruments which ascertain natural phenomena, with a considerable degree of accuracy, instead of conjectures or systems being founded on loose or general experience. It may still be proper to study the appearance of the Heavens, and not despise old proverbs, which often contain much local truth, but the new instruments out the quarters whence the winds blow, with all their variations; the barometer often enables us to foretell the state of the weather that may be expected, the thermometer ascertains the degree of heat, the hygrometer, the degree of moisture, and the pluviometer or rain gauge, the quantity of rain that has fallen during any given period, and by keeping exact registers of all these particulars, much useful information may be derived. The influence of different degrees of temperature and humidity, occurring at different times, may likewise be observed, by comparing the leafing, flowering, and after-progress of the most common sort of trees and plants, in different seasons, with the period when the several crops of grain are sown, and reaped each year. The farmer who thus attends to the character, the progress, and the length of the seasons, and registers them with accuracy, elevates himself above the station of an ordinary cultivator, and the facts which it is thus in his power to furnish, may essentially promote "The Science of Agriculture."

TURNIPS—LATE HARVESTING.—Never take in your turnips till there is a prospect of the ground a freezing. As a general thing, the growth of this root proceeds far more rapidly in cold than warm weather, and a light frost is by no means injurious. I have known this crop to remain out till the soil froze quite hard, and no injury to the crop. If harvested before cold weather, the turnips become corky, or spongy, and shrivel up, which induces an unpleasant flavor, and a tendency to decay. In this condition, they are fit only for stock feeding.—*Germanown Telegraph.*

Natural History.

SYMMETRY OF PLANTS AND ANIMALS.

At a special meeting of the Natural History Society of Glasgow held recently, Dr. John Scouler, M.D., L.L.D., F.R.S., lecturer to the Natural History Society of Dublin, read a very interesting paper on the Symmetry of Plants and Animals. The learned gentleman observed, that the great distinction between plants and animals consists, as Aristotle had long since observed, in the presence of sensation in the one class and its absence in the other. The functions of the plant were of two kinds only—nutritive and reproductive, while in the animal there was, in addition, a complicated apparatus of sensation and locomotion, connected by the central part of the nervous system. In vegetables the symmetrical arrangements of parts was consequently more simple than in animals, having no relation to locomotion. In the vegetable the parts were disposed in a spiral line, or radiated from a central axis, and hence could not be considered as bilateral. A flower, for example, had neither a right and a left side, nor anterior and posterior parts. On the contrary, in the animal kingdom

there was always an anterior part, indicated by the position of the mouth and having near it the cerebral mass, whether a brain or a ganglion, and also the principal organs of sense. By ascertaining the position of the mouth, we had therefore a certain means of recognizing the anterior extremity, and by this means, as Agassiz had well shown, we could recognize the posterior extremity and the right and left side; consequently the bilateral symmetry even of the radiated zoophytes, as the sea-urchin and the sea-star. Dr. Scouler mentioned—that the same kind of investigation when extended was sufficient to prove the existence of this bilateral symmetry throughout the animal kingdom, although it became obscure in proportion as the animal was deprived of active locomotive powers, or enclosed in a shell. Of the greater or less distinctness of the bilateral symmetry in proportion to the proportion of locomotion, we had examples in the *coriopsis* and the *Lernæa*, in which a young animals were perfectly bilateral, as furnished with ambulatory feet, while in the adult females permanently fixed to foreign substances, or to the bodies of other animals, almost every vestige of symmetry was lost. Nevertheless, even in wood-borers of very limited locomotive powers, we could still trace the bilateral symmetry. Even in the *actinia* the first was divided into two lateral portions, and in the allied genus of *Fungia* we observed this division even in the coral or polypriary formed by the animal.

PECULIARITIES OF THE SNAKE.

The snake climbs with facility, mounting perpendicularly the smooth trunk of a tree, and gliding along the branches, on which it loves to sit in the sun. If alarmed, it will sometimes move along the branch, but generally drops to the ground, lowering its foreparts gradually but very quickly, and letting go with the tail last of all. The mode in which colubrine snakes (and perhaps others) mount trees, is, I think, misunderstood. We see them represented in engravings, as encircling the trunk or branches in spiral coils; but this, though it may do very well for stuffed specimens in a museum, is not the way in which a living snake mounts a tree. It simply glides up with the whole body extended in a straight line, doubtless clinging by means of the tips of the expanded ribs, as we can see that the body is perceptibly dilated and flattened. In fact, a snake finds no more difficulty in passing swiftly up the vertical trunk of a tree than in gliding over the ground. I have been astonished to remark how slight a contact is sufficient for it to maintain its hold. The black snake will allow the greatest part of its body to hang down in the air, and thus remain still, while little more than the tail maintains its position by clinging (straight, not spirally, and not half round it, but longitudinally along it) to the upper surface of a branch and it will often pass freely and gracefully from one branch to another at a considerable interval, projecting its head and body with the utmost ease across the interval. The motions of a snake in a tree are beautifully easy and free, and convey the impression that the reptile feels quite at home among the branches. This is a bold and fierce snake, often turning when struck, and approaching its assailant with the head erected in a most menacing attitude; the mouth opened to its widest extent. I have seen one thus endeavouring to attack, when foiled by being struck, and thrown off by a stick, at length become quite enraged; the neck being dilated to nearly an inch in width, and perfectly flattened, so that the white skin could be seen between the scales.

CURIOUS SPECIES OF HUMMING BIRDS.

At a recent meeting of the Geological Society of London, Mr. J. Gould read a paper giving a very interesting description of six new species of humming birds, which had been brought from Veragua, in new Granada, by Mr. Warzewicz, a distinguished traveller and botanist. Some

specimens, thought to have been spoiled on the voyage, still retained beautiful colours a glittering red, blue, and green colour, mixed with snow white, its brilliancy enhanced by darker colours. These interesting and beautiful birds were discovered at 6,000 feet up the mountains where they inhabit. Warzewicz is the first naturalist who has penetrated into these regions, and in his excursions he encountered both hardship, danger, and fatigue.

TENACITY OF LIFE OF THE POLYPT.

In a recent work treating on the passions of animals, the following facts are given illustrative of the tenacity of life in the polypt. They may be pounded in a mortar split up, turned inside out like a glove, and divided into parts, without injury to life; fire alone is fatal to them. It is now about a hundred years since Trembley acquainted us with these animals, and first discovered their indomitable tenacity. It has subsequently been taken up by other natural historians, who have followed up these experiments, and have even gone so far as to produce monsters by grafting. If they be turned inside out, they attempt to replace themselves, and if unsuccessfully, the outer surface assumes the properties and powers of the inner, and the reverse. If the effort be partially successful only, the part turned back disappears in twenty-four hours in that part of the body it embraces, in such a manner that the arms which project behind are now fixed in the centre of the body; the original opening also disappears, and in the room of feelers a new mouth is formed to which new feelers can attach themselves, and this new mouth feels immediately.

The healed extremity elongates itself into a tail, of which the animal has now two. If two polypts be passed into one another like tubes, and pierced through with a bristle, the inner one works its way through the other, and comes forth again in a few days; in some instances, however, they grow together, and then a double row of feelers surrounds the mouth. If they be mutilated, the divided parts grow together again, and even pieces of two separate individuals will unite into one.

Miscellaneous.

SILVER FOUNTAIN.—It is the babbling spring which flows gently, the little rivulet, which runs along, day and night, by the farm-house, that is useful, rather than the swelling flood, or the warbling cataract. Niagara excites our wonder, and we stand amazed at the power and greatness of God there, as he "pours it from his hollow hand." But one Niagara is enough for the continent, or the world—while the same world requires thousands and tens of thousands of silver fountains and gently flowing rivulets, that water every farm and meadow, and every garden, and that shall flow every day and every night, with their gentle, quiet beauty. So with the acts of our lives. It is not by great deeds, like those of the martyrs, that good is to be done; it is by the daily and quiet virtues of life—the Christian temper, the meek forbearance, the spirit of forgiveness, in the husband, the wife, the father, the mother, the brother, the sister, the friend the neighbour, that good is to be done.

A PAPIER MACHE CHURCH.

There is a church actually existing near Bergen, which can contain nearly 1000 persons. It is circular within, octagonal without. The reliefs outside, and the statues within, the roof, ceiling, the Corinthian capitals, are all of papier mache, rendered waterproof by saturation in vitriol, lime-water, whey, and white of egg. We have not yet reached this pitch of audacity in our use of paper; but it should hardly surprise us, inasmuch as we employ the same material in private houses, in steam-boats, and in some public buildings, instead of carved decorations and plas-

ter cornices. When Frederick II of Prussia set up a limited papier mache manufactory at Berlin in 1765, he little thought that papier cathedrales might, within a century, spring out of his small boxes, by the slight of hand of advancing art. At present, we old-fashioned English who haunt cathedrals and build churches like stone better. But there is no saying what we may come to. It is not very long since it would have seemed as impossible to cover eighteen acres of ground with glass, as to erect a pagoda of soap bubbles; yet the thing is done. When we think of a psalm sung by a thousand voices pealing through an edifice made of old rags, and the universal consent bound down to carry our messages with the speed of light, it would be presumptuous to say what can and what can not be achieved by science and art, under the training of steady old Time.—*Dickens's Household Words*

HOW SCHOLARS ARE MADE.

"Costly apparatus and splendid cabinets have no magical power to make scholars. In all circumstances, as a man is, under God, the master of his own fortune, so he is the maker of his own mind. The creator has so constituted the human intellect that it can only grow by its own action, and by its own action it will certainly and necessarily grow. Every man must, therefore, educate himself. His book and teacher are but helps; the work is his. A man is not educated until he has the ability to summon, in an emergency, all his mental powers in vigorous exercise to effect its proposed object. It is not the man who has seen most, or read most, who can do this; such a one is in danger of being borne down, like a beast of burden, by an overloading mass of other men's thoughts. Nor is it the man who can boast merely of native vigor and capacity. The greatest of all warriors that went to the siege of Troy had not the pre-eminence, because nature had given strength, and he carried the largest bow, but because self-discipline had taught how to bend it."—*Daniel Webster.*

ROAST PIG.

We have always admired Charles Lamb's account of the origin of roast pig in China, "Ching Ping, it seems, had suffered his father's house to be burned down; the out houses were burned down along with the house; and in one of these the pigs, by accident, were roasted to a turn. Memorable were the results for all future China and future civilization. Ping, who (like all China besides,) had hitherto eaten his pig raw, now for the first time tasted it in a state of torrefaction. Of course he made his peace with his father by a part (tradition says a leg) of the new dish.

The father was so astounded with the discovery, that he burned his house down once a year for the sake of coming at an annual banquet of roast pig.

A curious prying sort of fellow, one Chang Pang, got to know of this. He also burned down a house with a pig in it, and had his eyes opened.

The secret was ill kept—the discovery spread—many great conversions were made—houses were blazing in every part of the Celestial Empire. The insurance offices took the matter up. One Chong Fong, detected in the very act of shutting up a pig in his drawing-room, and then firing a train, was indicted on a charge of arson. The chief justice of Peking, on that occasion, requested an officer of the court to hand him a piece of roast pig, the *corpus delicti*, for pure curiosity. And him to taste; but, within two days, after it was observed that his lordship's town-house was burned down. In short all China apostatized to the new faith and it was not until some centuries had passed, that a great genius arose, who established the second era in the history of roast pig, by showing that it could be had without burning down a house.

COURTESY.—This beautiful passage from Blair should be stamped on the mind of every youth. Polish applied in facile and unseasoned timber with ever so skillful a hand, may impart to it for a time the brilliancy of the most beautiful material but the defects and blotches will soon peep through, and its worthlessness, become apparent. "In order to render yourselves amiable in society correct every appearance of harshness in behaviour. Let that courtesy distinguish your demeanour, which springs not so much from studied politeness as from a mild and gentle heart. Follow the customs of the world in matters indifferent, but stop when they become sinful. Let your manners be simple and natural, and of course they will be engaging. Affectation is certain deformity. By forming yourselves on fantastic models, and vying with one another in every reigning folly, the young begin with being ridiculous, and end in being vicious and immoral!"

Varieties.

'Mother send for the doctor.'

'Why, my son?'

'Cause that man in the parlour is going to die—he said he would, if sister Jane would not marry him—and Jane said she wouldn't.'

A poor emaciated Irishman having called on a physician, in a forlorn hope, the latter spread a huge mustard plaster and placed it on the poor fellow's breast. Pat, who with a tearful eye, looked down upon it, said, 'Docther, docther, dear, it strikes me that is a deal of mustard for so little mate.'

How, said a County Court Judge to a witness, how do you know that the plaintiff was intoxicated on the evening referred to? Because I saw him, a few minutes after supper, trying to pull off his trousers with a boot-jack. Verdict for the defendant.

AN IRISH CHARACTER.—A Mrs Davy giving evidence to character in the case of a woman charged with theft, said she was a 'dacent, honest, drunken creature.'

THE OSTRICH BOY.—'I say, boy, stop that ox.' 'I haven't got no stopper, sir.' 'Well then head him.' 'He's already headed, sir.' 'Confound your impertinence, turn him.' 'He's right side out already, sir.' 'Speak to him, you rascal.' 'Good morning, Mr. Ox.'

'I say,' said a dandy to an intelligent mechanic, 'I've got an idea in my head.'

'Well,' replied the other 'if you don't cherish it with great care, it will die for want of companions.'

'It is a curious fact,' says some entomologist 'that it is only the female mosquito that torments us.' A bachelor friend says it is not at all curious.

It is ridiculous to see a little man grown jealous. We know of nothing to compare him to unless it's a bottle of ginger-pop in a high state of rebellion.

If you have an acquaintance you wish to cut, loan him a 'tin spot,' and he will never trouble you again, unless you follow him.

Observe all men—thyeelf most.

A man's own good breeding is the best security against other people's ill manners.

There is modesty in pure desires after excellence which affection can never counterfeit.

There is nothing honorable that is not innocent, and nothing mean but what aitches guilt.

Artists' Corner.

PAINTING IN MILK.

In consequence of the injury which has often resulted to sick and weakly persons from the smell of common paint, the following method of

painting with milk has been adopted by some workmen, which, for the interior of buildings besides being as free as distemper from any offensive odour, is said to be nearly equal to oil-painting in body and durability.

Take half a gallon of skimmed milk, six ounces of lime newly slaked,* four ounces of poppy, linseed, or nut-oil, and three pounds of Spanish white. Put the lime into an earthen vessel or clean bucket, and having poured on it a sufficient quantity of milk to make it about the thickness of cream, add the oil in small quantities at a time, stirring the mixture with a wooden spatula. Then put in the rest of the milk and afterwards the Spanish white.

It is, in general, indifferent which of the oils above mentioned you use; but, for a pure white, oil of poppy is the best.

The oil in this composition, being dissolved by the lime, wholly disappears; and, uniting with the whole of the other ingredients, forms a kind of calcareous soap.

In putting in the Spanish white, you must be careful that it is finely powdered and strewn gently over the surface of the mixture. It then by degrees, imbibes the liquid and sinks to the bottom.

Milk skimmed in summer is often found to be curdled; but this is of no consequence in the present preparation, as its combining with the lime soon restores it to its fluid state. But it must on no account be sour; because, in that case it would, by uniting with the lime, form an earthy salt, which could not resist any degree of dampness in the air.

Milk paint may likewise be used for out-door objects by adding to the ingredients before mentioned two ounces each more of oil and slaked lime, and two ounces of Burgundy pitch. The pitch should be put into the oil that is to be added to the milk and lime, and dissolved by gentle heat. In cold weather, the milk and lime must be warmed, to prevent the pitch from cooling too suddenly, and to enable it to unite more readily with the milk and lime.

Time only can prove how far this mode of painting is to be compared, for durability, with that in oil; for the shrinking to which coatings of paints are subject depends in great measure upon the nature and seasoning of the wood.

The milk paint used for in-door work dries in about an hour; and the oil which is employed in preparing it entirely loses its smell in the soapy state to which it is reduced by its union with the lime. One coating will be sufficient for places that are already covered with any colour, unless the latter penetrates through it and produce spots. One coat will likewise suffice, in general, for ceilings and staircases; two will be necessary for new wood.

Milk painting may be coloured, like every other in distemper, by means of the different colouring substances employed in common painting. The quantity I have given in the receipt will be sufficient for one coat to a surface of about twenty-five square yards.

*Lime is slaked by dipping it into water, then taking the pieces out immediately and allowing them to slake the open air.

OPINIONS OF THE PRESS.

THE CANADIAN FAMILY HERALD.—D. MACDOUGALL, TORONTO.—This is the happy designation of a small weekly miscellaneous literary paper, printed by Mr. Stephens, (King-Street East,) for the proprietor, Mr. D. MacDougall, of this city. The appearance of the first number is highly creditable, both to printer and editor; and there is little doubt that, if conducted in the same spirit with which it has commenced, it will be successful. The editor seems so far to have chosen as his model, *The Family Herald*, one of the most interesting and most extensively circulated literary papers in London, and, as a necessary consequence, has introduced one great feature in that serial—*Answers to Correspondents*.

This will undoubtedly give the *Herald* a considerable degree of interest amongst a numerous class of enquirers that are to be found in every city. The prospectus is brief, but it is perhaps simple enough for a paper that has no political theories to uphold, and no denominational peculiarities to contend for. In its commencement he says:

"Our simple aim, courteous reader, in appearing before you in the columns of the *Canadian Family Herald*, is to fill up a vacant niche in the social literary circle, to gather into one focus, a few of the rays of genius that are every day dattled across our path, and become the medium by which their concentrated exertions shall again be transmitted to enlighten the general family circle."

We wish him all success in the prosecution of his simple aim, confident that society will be no loser thereby.—*Globe*.

CANADIAN FAMILY HERALD.—This is the title of a new paper published at Toronto, by D. MacDougall, the first number of which we have received. The prospectus states it will be devoted to Literature, Science Art, and Agriculture. It is published weekly, in quarto form, at 5s. per year its typography is neat, and the selections of a high order—*Canada Christian Advocate*.

The *Canadian Family Herald* is the name of a new and neatly got up publication, just issued at Toronto—*Chronicle and News*.

The first number of a neatly got up weekly publication, called *The Canadian Family Herald* has been sent to us. It is published in Toronto at the low price of five shillings per annum. It promises to be a useful addition to our secular periodical literature.—*Fitch*.

AGENTS FOR THE CANADIAN FAMILY HERALD,

The following gentlemen have kindly consented to act as Agents to promote the circulation of this Paper:—

- D. McLellan, - - - Hamilton.
- James McCuaig, - - - Paris, C.W.
- David Buchanan, - - - Port Sarain.
- Robert Reid, P.M., - - - Saugeen.
- William Hogg, - - - York Mills.
- Thomas A. Milne, - - - Markham, (Markham Mills.)
- D. McLeod, - - - Port Hope.
- A. Stewart, - - - Brattle.
- J. J. Whitehead, - - - Kingston.
- William Snrder, - - - Peterboro.
- D. T. Broome, - - - West Williamsburg.

TERMS.—Five Shillings per annum when paid in advance: Six Shillings and three-pence if not paid within three months after subscribing.

Advertisements.

GROCERIES.

ALEXANDER MALCOLM

BEGS to inform his friends and customers that he has removed from his Old Stand to the New Brick Building North Corner of Yonge and Adelaide streets where he has on hand a large and well-selected Stock of

GROCERIES, WINES, LIQUORS, PROVISIONS, &C.

All of which he will sell, at his usually low prices.

Toronto, Dec. 13th 1851. 2-4.

TUITION.

A SCHOLAR of the Toronto University will be happy to assist a few Young Gentlemen in the study of the Classics and Mathematics.—Terms liberal. Satisfactory references can be given.—apply at the office of this paper.

Toronto, December 12th, 1851. 2-4.

DAVID MAITLAND,
NO. 1 YONGE STREET.

NEARLY opposite the Bank of Montreal. Has on hand a well-assorted Stock of Confectionaries (also Christmas and New Year Cakes,) made up for family use, cheaper than ever.

No Cakes made up for Raffle. 2-2
Toronto, Dec. 13, 1851.

A SALE.

J. CARMICHAEL

BEGS about to make extensive alterations in his premises, will sell after this date, the whole of his Winter Stock of

Simple and Fancy

DRY GOODS AND MILLINERY,

at such reduced prices as will ensure a speedy sale. Parties about to buy their winter clothing have now an opportunity of doing so at prices far below their value. Those calling first will have the best choice.

Remember No. 68, King Street, 2 doors West of Church Street.

Toronto, Nov. 5th, 1851. 1-3m.

NEW DRY GOODS STORE

JUST OPENED!

J. D. MERRICK

BEGS to inform his friends and the public that he has just opened, immediately opposite the St. Lawrence Hall, with a large and varied assortment of Staple and Fancy Dry Goods, suitable for the fall and winter trade.

Toronto, Nov. 23th, 1851. 1-1m.

CITY ELECTIONS.

THE Lists of Persons entitled to Vote in the various Wards of the City of Toronto, at Municipal Elections, during the year 1852, are now hanging in the City Hall. Persons interested are required to see that the Lists are correct, as no alterations (of any names misspelt, omitted, or improperly inserted) can be made in the said Lists, unless at least four days notice in writing are given to the Clerk of the Common Council, of any desire to have the said Lists altered.

CHARLES DALY,
C. C. C.

CLERK'S OFFICE,
Toronto, Dec. 13th, 1851. 2-1d.

Tenders for Market Fees.

TENDERS will be received at this Office until Noon, on MONDAY, the 24th inst., from Persons willing to contract for the Market Fees, collectable under the City Laws, at all the Public Markets in the City of Toronto, including the Fees upon Waggon or Carts, attending the enclosed space below the St. Lawrence Market.

Such Fees to be collected in the Markets only, and in no other parts of the City.

Copies of the City Law and further particulars may be obtained on application, during office hours.

The Committee will not bind themselves to accept the highest Tender.

By order of the Market Committee,

CHARLES DALY,
C. C. C.

CLERK'S OFFICE,
Toronto, Dec. 3rd, 1851.

WANTED

A PERSON competent to canvass for this Paper in the City and Country.—Apply at this Office.
Toronto, Dec. 13, 1851.

NEW DRY GOODS WAREHOUSE.

WILLIAM POLLEY

RESPECTFULLY intimates to his friends and the public generally, that he has opened those commodious premises,

66, King Street East,

(lately occupied by Messrs. McKean, Barrington & Co.) three doors west of Church Street, with an entire new stock of Fresh and Fashionable Staple and Fancy

DRY GOODS,

Consisting in part of

Printed Colours Cloths, Printed Cashmere do., Printed De Laine do., Chene Glape, Pithan, Fabrique de Lyon, Plain and Figured Colours Cloths, Plain and Figured Orleans do., O-la Plaids, Saxonia Plaids, French Cloakings, Mohair do., Black and Coloured Gros de Naples, do. do. Silk Velvets do., do. do. Cotton do., 7-8ths, 4-4ths, 9-8ths Fancy Prints, Mourning Prints, Furniture do., Blue and White Prints, Blue and Yellow do., Hungarian Cloths, Coloured Derry's Blue Bengals, do. Drills, do. Denims, Furniture Stripes, Suisse Shirting, Regatta do., White Cottons, do. Sheetings, Grey Cottons, (all widths), Stout Grey Sheetings, 3-4ths and 6-4ths Blue Ticks, 6-4ths Straw, 3-4ths and 4-4ths Osnaburgh, 3-4ths and 4-4ths Brown Linens, Towels and Tawelling, Dowlax, Uncabac, Canvas, Bags and Bagging, Chene Cloth, Buff and White Window Hollands, Undressed Hollands, Blay do., Slate Brown do., Scotch do., Irish Linens, Table Damasks, Diapers, Lawns, Broad Cloths, Beaver do., Whitney do., California do., Etouffe do., Canadian do., Sailcuits, Twocods, Doeckins, Cassimeres, Vestings, Blankets, Hugs, Scarlet, Red, White, Pink, Rose and Blue Flannels, Welsh do., Printed Salisbury do., Green Balzes, Plaidings, Collar Cuckas, Moleckinks, Printed Druggets, Carpets, Silks, Linings, Patchwork, Oil Cloths, Bonnet Shapes, Quilts and Counterpanes, Cotton and Woolled Table Covers, Jean, Lawings, Umbrellas.

Grapes, Bonnet Ribbon, Cap do., Saranet do., Bath do., Flowers, Lappets, Veils, Stays, Muslin, Netts, Laces, Edgings, Lace Sleeves, Cambric Handkerchiefs, Silk Pocket do., do. Neck do., Bath do., Opera Ties, Mufflers, Ladies Wool Shawls, do. do. Plaids, Wollen Handkerchiefs, Wollen Yarn, Wollen do., Lamb's Wool do., Cotton Handkerchiefs, Gimpes, Jenny Lind Braids, Dress Buttons, Trimmings, &c., &c., &c.

A FULL ASSORTMENT OF WOLLEN GOODS, IN

Hosiery and Gloves in every variety, Folkas, Lapland and Athens, Coats, Hoods, Cravats, Bows, Peleries, Ear Caps, Cuffs and Sleeves, Bopkins, Gaiters, Glengary and Scaletto Caps, &c., &c., &c.

SMALL WARES IN ENDLESS VARIETY.

W. P. would also intimate that as his Stock is ENTIRELY NEW, with every article in the line, and selected in the British markets expressly for this trade, he is enabled to offer a large and splendid assortment of Dry Goods, which, for QUALITY, CHEAPNESS and VARIETY, cannot be surpassed by any house in the trade.

Superior Cotton Warp, all Nos. a prime article of Darning; Black and White Wadding, &c., &c.

TERMS CASH. No abatement from the price asked.

WM. POLLEY.

Chequered Store, Victoria Row, Three Doors West of Church Street, Toronto, Nov. 23d, 1851.

1-in.

NO FICTION.

GROCERY AND PROVISION STORE, QUEEN STREET WEST.

THE SUBSCRIBER begs to invite the attention of his friends and the public to his Extensive Assortment of

Groceries, Liquors, Provisions, &c.,

Which he has lately received, constituting the largest Stock ever offered in this City West of Yonge Street, and which he will supply to his Customers at the very lowest remunerating Prices for Cash, pledging himself not to be undersold by any other house in the same line in Toronto. His Stock in part consists of—

- 15 hds Muscovada Sugar,
- 20 barrels Crushed do
- 6 " Mustard do
- 20 dozen Loaves Sugar,
- 20 Chests Young Hyson Tea,
- 10 " Black do
- 20 cwt fine Black Tea, Gunpowder and Imperial,
- 10 chests Twankay,
- 50 boxes Fresh Raisins,
- 25 half-boxes do
- 50 qd-boxes do
- 10 tierces Rice,
- 4 casks Vinegar,
- 5 barrels Pot Barley,
- 20 " Oatmeal,
- 5 " Indian Meal,
- 5 " Buckwheat,
- 13 boxes Tobacco,
- 20 barrels No. 1 Herring,
- 50 " No. 2 & 3 Mackerel,
- 50 " Lake Ontario White Fish,
- 5 " Salt Water Salmon,
- 50 boxes Dilly Herring,
- 33 " Yarmouth Bloaters,
- 5 casks fine Sherry,
- 5 pipes fine Port,
- 3 hds pale Brandy,
- 4 hds dark do
- 5 hds Hamburg Gin, (very fine)
- 25 bbls Morton's (Kingston) scotch Whiskey,
- 15 " Wallace's Toddy Whiskey,
- 10 " Hespeler's do do with about 30 barrels of other Canadian brands,
- 2 " Scotch Whiskey,
- 10 boxes Schiedam,
- 10 baskets Champagne,
- 7 cwt fine Cheese,
- 10 boxes American and English Sperm Candles
- 15 boxes Starch,

And a supply of other articles usually sold in the trade, too extensive for enumeration.

In the Provision Line, will also be found a Large and well selected Stock of Hams, Bacon, Fresh and Pickled Pork, Butter, Potatoes, Cabbages, Turnips, Carrots, Onions, Beer, Root, &c., &c., &c.

A large Assortment of Pickles, Fish and other sauces

No Charge for Inspection!

D. HURLEY,

Toronto, Nov. 23d, 1851. Queen Street West.

A CARD.

DANIEL McNICOL

BEGS to inform the Merchants of this city and surrounding country, that he has opened out on Yonge Street, opposite the Bank of British North America, a general assortment of Broad Cloths, Fancy Doackins, Cassimeres, Shirts, Bonnets, Caps, plain and fancy Moleckins, Conduits, Shirts, Ready-Made Clothing, Hosiery, &c., &c., all of which he offers to the Public at the lowest wholesale prices.

Toronto, Nov. 23d, 1851.

1-1/2

Stoves! Stoves! Stoves!

AT

L.R. JOHN MCGEE'S,

43, Yonge Street, three doors from King,

THE Subscriber has now on hand a splendid assortment of Stoves, including every variety of pattern, among which are the celebrated "Iron," "Hang-up," and "New Improved Premium" Cooking Stoves, Parlor, Box, and Air Tight Stoves.

—A.L.S.—

An assortment of Double Folding Door Coal Stoves, which for beauty of design are unequalled in Canada.

Dumb Stoves, Stove Pipes, and Tin Ware at Lower Prices than any other house in this City, Stove Pipes fitted up, and Job Work done with punctuality and despatch.

JOHN MCGEE,

Toronto, Nov. 23d, 1851.

1-1/2

D. MATHIESON'S

CLOTHING, TAILORING,

GENERAL Outfitting, and Dry Goods Warehouse, Wholesale and Retail, No. 43, King Street East.

Toronto, Nov. 23d, 1851.

1-1/2

W. H. DOEL,

Wholesale and Retail

DRUGGIST & APOTHECARY,

IMPORTER of English, French, Mediterranean and American Drugs, and Chemicals, Perfumery, Fancy Goods, Patent Medicines, Dye Stuffs, Paints, Oils, Varnishes, Brushes, Artists' Colours, Tools, Trusses, &c., &c.,

5, King Street East.

Toronto, Nov. 23d, 1851.

1-1/2

DRY GOODS,

No. 8, KING STREET EAST.

ALEXANDER RENNIE, JR.,

BEGS to inform the citizens of Toronto and the surrounding country, that he has on hand, a Large and well selected Stock of

FANCY & STAPLE

DRY GOODS,

suited for the Fall and Winter trade. His Stock having been purchased on the most reasonable terms, he is confident that it cannot be surpassed for cheapness or quality by any house in the trade. An early inspection is respectfully requested.

Toronto, Nov. 23d, 1851.

1-1/2

General Printing Establishment.

JAMES STEPHENS,

BOOK AND JOB PRINTER,

6, CITY BUILDINGS, KING ST. EAST.

EMBRACES the present opportunity of returning thanks to the Citizens of Toronto, and to the inhabitants of the surrounding Neighbourhood, for the very liberal support received from them during the few years he has been in business, (especially since his removal to his present stand,) and begs to assure them that he will endeavour to execute all their future orders in the same neat style, as heretofore, with the utmost promptitude, and on the most liberal terms.

Toronto, Nov. 23d, 1851.

PRINTED FOR D. McDougall, Every Saturday Morning, at James Stephens, Printer, No. 5, City Buildings, King Street East, Toronto.