

tive of this favored earth; that I occupy a place on the soil consecrated by the mission of patriarchs and prophets, and the greater mission of his Son; and that I belong to this habitable earth, where "his delights are with the sons of men;" that I live in a world where that Incarnate One first drew his infant breath, and where one of Adam's daughters called him Son! Here lies man's dignity, that his nature has been thus associated with Deity. He belongs to the earth the Saviour trod upon, and which was vocal with his prayers, and wet with his tear and blood. And if a believer in Jesus, he is one with that redeemed humanity in which, from the eternity past to the coming eternity, this Redeemer takes such a joyous interest, and of which he is the accredited, honored, adored representative in the Court of Heaven.—*Dr. Spring.*

### Scientific.

#### Important Invention.

The New York correspondent of the National Intelligencer thus describes an experiment made on Friday last with the wonderful Fire Annihilator:

I was present yesterday at a trial of the new but already famous "Fire Extinguisher," at the office of Edwards, Sanford & Co's European Express, No. 16 Wall street. Some twenty or thirty persons were present to witness the experiment, which was made in the area in the rear of the building. A barrel, having both ends out, was placed upon blocks about eighteen inches above the pavement, and filled with combustibles, shavings, turpentine, &c., and a fire set underneath. The machine (one of the smallest churn sized ones) having been charged, was then by a single tap set to making the gas, a process so rapid that in less than twenty seconds it began to issue in a jet or stream of vapor or white smoke from a nose or aperture in the top. The combustibles and barrel were now all in a blaze, and gave forth intense heat, but the moment that the jet of gas was directed to the fire, it stopped, smouldered faintly a moment, and in less than one minute was extinguished and dead. It was wonderful, and all present were delighted with the success of the experiment. I have not a doubt of the practical usefulness of this machine for extinguishing such a fire as ordinarily calls out several fire companies, and there is not a doubt but that it must either do away with fire insurances altogether in the course of a few years, or lower the rates of premium very materially.

The gas, which is such an effectual dampener upon fire is made of simple and cheap materials. It is of the same nature as that which is found in old wells, sewers, and vaults, from which by accident or design, the air has long been excluded. Occasionally a receptacle of this kind is opened, and for a time any attempt to illuminate it by a lamp or flambeau proves futile, as it extinguishes the flames instantaneously. The test is frequently used by intelligent laborers before they will attempt to descend into a place like to have become thus deprived of the proper atmosphere. Many deaths have occurred, however, among laborers from ignorance of this phenomenon, the mephitic gas destroying life when pent within a place where it is generated.

This gas, as used in the fire extinguisher, is converted into one of the greatest blessings, and, it is said, does not affect the atmosphere at a fire so materially as to injure the lungs. I have been subject to bronchitis myself, and this may have rendered me more sensitive yesterday when this experiment with the machine was made, but it certainly affected my lungs, though slightly.

#### Sea-Sickness.

At the late meeting of the British Association, a paper was read by Mr. J. Atkinson, "On sea-sickness, and a new remedy for its prevention," from which we take the following extract:—

"Let a person on shipboard, when a vessel is bounding over the waves, seat himself, and take hold of a tumbler nearly filled with water or other liquid, and at the same time make an effort to prevent the liquid from running over, by keeping the mouth of the glass horizontal, or nearly so. When doing this, from the motion of the vessel, his hand and arm will seem to be drawn into different positions, as if the glass were attracted by a powerful magnet. Continuing his efforts to keep the mouth of the glass horizontal, let him allow his hand, arm and body to go through the various motions—as those observed in sawing, planing,

pumping, throwing a quoit, &c.—which they will be impelled, without fatigue, almost irresistibly to perform: and he will find that this has the effect of preventing the giddiness and nausea that the rolling and tossing of the vessel have a tendency to produce in inexperienced voyagers.

"If the person is suffering from sickness at the commencement of his experiment, as soon as he grasps the glass of liquid in his hand, and suffers his arm to take its course and go through the movements alluded to, he feels as if he were performing them of his own free will; and the nausea abates immediately, and very soon ceases entirely, and does not return so long as he suffers his arm and body to assume the postures into which they seem to be drawn. Should he, however, resist the free course of his hand, he instantly feels a thrill of pain of a peculiarly stunning kind shoot through his head, and experiences a sense of dizziness and returning nausea." From this last circumstance the author of the paper infers it as probable, that the stomach is primarily affected through the cerebral mass, rather than through a disturbance of the thoracic and abdominal viscera; and he is of opinion that the method of preventing sea-sickness just described (which he has found by experience to be effectual) depends on the curious fact that the involuntary motion communicated to the body by the rolling and tossing of the vessel, is, by the means he adopts, apparently converted into voluntary motion.

**IMPROVEMENT IN BRICK MAKING.**—At Lewiston Falls, Me., by the attention of Mr. Loring Wing, we had an opportunity of witnessing the new process of making bricks by steam, at the establishment of Messrs. Woodworth & Moore, of Boston, located at that place, for which Mr. Wing has just completed the machinery.

The clay is ground up, pulverized, and bolted as fine as meal. In this state, entirely dry except moistening the moulds to prevent adhesion, the clay is turned into eight boxes of the size of the bricks, and they undergo a pressure of six hundred tons. The machinery then raises the bricks and pushes them forward, while the moulds are filling; and then another revolution produces eight more. Seven revolutions are made in a minute, producing fifty-six bricks so hard when taken from the machine that wheelbarrow loads of eighty are packed together without marring them in the least. The bricks come from the kiln with a beautiful, smooth and straight surface, equal to any pressed bricks we have seen brought to our market.

With this machine twenty men can make thirty thousand bricks in a day. There being no evaporation, the burning can be made with a great saving of fuel. Thirty-five cords of wood will burn one hundred thousand. This machine is the only one in the country—and the first products will soon be ready for public exhibition. It is destined to make not only a great improvement in the manufacture, but also add much to the beauty of structures for which bricks are used.—[*Portsmouth Journal.*]

**SELF-SEALING ENVELOPES** are the greatest conveniences among small things that have ever been invented. Those who have once used them will never do without them again. They may be prepared without any trouble, and by any child. Envelopes should be bought by the hundred, as they come much less than if purchased in smaller quantities. Dissolve a cent's worth of gum arabic in a very little water—just enough to make a thickish paste. With the finger apply a little of the gum to the fly-leaf of the envelope, at the spot where the wafer should come. When dry, you will have a self-sealing envelope. When wanted for use, wet the gum with the tongue, and the letter will seal without further trouble. It will take but a few minutes to prepare a hundred envelopes in this manner, and when finished, you will have saved yourself the trouble of hunting up your wafers, wax and sealing-stamp one hundred times! You will have saved something in cash also, and much in time.

### The Farm.

#### Ploughing.

There are few seasons probably, when the important labours of ploughing can be better or more economically performed, taking all things into consideration, than in the fall. Most farmers after the business of harvesting is over, have generally an ample sufficiency

of leisure to enable them to attend to this business without serious inconvenience or detriment to more weighty affairs. Another important advantage attending this practice, and one which is certainly of far too much importance to the farmer, to be hastily or inconsiderately overlooked, is the benefit resulting in the turning in of the green haulm and roots of the grass which exist after the crop has been removed, and which, by becoming turned in, operates as a powerful and speedy enrichment to the soil. Grass lands, from which a heavy crop of hay has been taken, generally produces a crop of aftermoth, which in its decomposed state, furnishes an excellent manure, and is of far greater value when appropriated in this way, than when cut and fed to stock as hay. It has been estimated by competent judges, that, on every acre of grass land—provided it be of ordinary fertility, and the grass roots well "set," there is from thirty to forty tons of soluble matter, fit for the food of plants. This large mass, by being covered in autumn, by the careful inversion of the sward, but not too deeply, and thus secured from the deterioration of the winds and rains, is in a suitable condition to operate the most beneficial agency on the soil the subsequent spring. The laws of chemistry, under such circumstances, operate with the greatest energy and facility, and effect without any further assistance from industry, the accomplishment of the most happy and fortunate results. In autumn the team is also generally more able to perform the work than they are in the spring; they are in good condition, consequently strong, active, and in "good heart."—In the spring, there are a multiplicity of duties to be performed, all of which are alike imperative and important. The having all one's ploughing done, releases one from innumerable inconveniences, and makes him in a great degree the master of his work. It is true there are soils on which this operation is more beneficial by performed in spring; but these afford but a single exception to the general rule. Of these the operator must judge for himself.—*Germantown Telegraph.*

#### Harvesting Winter Apples.

In harvesting apples, especially those intended for winter, they should be carefully picked by hand in bright clear weather. All bruises are not only injurious as tending to decay, but they render the fruit partially worthless. Some fruit growers pick their fruit the last of September, before completely ripe, and allow it to shrivel a little before packed in barrels, as it will keep well under this treatment. Such fruit is not equal in quality to that well ripened on the tree. In very warm locations, winter fruit is frequently ripe by the last of September. Most fruit-growers allow their winter apples to remain on the trees until October, and become thoroughly ripe.

After picking the fruit, pack carefully in barrels, and head up closely. The following is the mode of management in this section. The barrels are piled up horizontally in cool, open sheds, or in the shade of trees or buildings, and sometimes in open space, covered with boards laid over the barrels, to keep off the sun and rain, and allowed to remain out till November, till there is no danger of their freezing. Apples thus managed will escape a severe frost. The thermometer may be ten or twelve degrees below freezing, or the weather cold enough to freeze ice half an inch thick. We have known apples to escape when the thermometer was twenty degrees below freezing; but there is a risk in leaving them out in so cold weather. When the weather becomes too cold for them to be safe out of doors, put them into a cool cellar. Some fruit growers put them into the cellar immediately after harvesting. Whether apples are put into cellar early or late, the cellar should be well ventilated in clear weather, when the wind is north or west; but kept shut up closely when the wind is in other directions. This should be practised even in winter, when there is no danger of apples freezing.—*New England Farmer.*

#### Selling Corn.

Sell no corn in the ear; have all that you sell shelled. A hand-shelling machine will answer if your crop is a small one—if large get one to be worked by horse-power—neither will cost a great deal—and we are very certain that the cobs, if crushed, steamed, and fed to the cattle, will be worth more to you in a single winter than the price of a corn-sheller, whether you get a small or a large one. We believe there is one third as much nutri-

ment in a bushel of cobs as there is in a bushel of grain, and we do know that cows or oxen fed upon three pecks of the crushed or steamed cobs in addition to their usual quantity of hay, tops, or fodder, will keep fat. Then why haul your corn cobs to market to be given away? It costs you as much to carry a bushel of cobs to market as it does a bushel of corn. Shell your corn, leave your cobs at home, to nourish your cattle, and through them your land, and where you now send one bushel of corn, you will be able to transport two for the same money. Look this subject fairly in the face—consult economy—consult the comfort of your cattle—consult the wants of your soil, and you cannot fail to take our advice.—[*American Farmer.*]

We should be glad to hear of practical experiments in feeding of ground cobs—the chemical constituents of the cob will not warrant the above estimate of their value, but like the carrot, they may contain slight quantities of materials not yet noted by chemists, which may render them valuable. [Ed. Working Farmer.]

#### Work for the Season.

October is the most important month to the farmer; his corn, his potatoes, and his winter apples are then in the best order to be put up, as all these are better in the open air till after October commences.

One word as to corn. It must not be kept close. Much is lost yearly for want of proper room and a proper time for harvesting. Corn should not lie long in large heaps, either husked or unhusked. There is yet much juice in the cob that needs room to evaporate.

If hay barns must be open-boarded to save the hay from must, much more should corn barns, that hold an article less dried. Narrow strips of board are best for the sides of corn barns, and the corn bins should be no more than two feet deep. When corn is spread over a floor it should be shovelled over once a week till December. The labor is not great, and the saving from mould is important.

Potatoes should never be exposed to the sun after digging; and exposure to the air in all cases injures the pulp. Dig them while dry and place them in cellars, as soon as may be, with sods on the barrels, or bins, to exclude the air. They may be entirely buried beneath sand or dryish loam, and kept so till the time of next planting.

This differs much from the general practice but general practice is wrong. Repeated trials prove that potatoes are injured by exposure. Potatoes sent to Boston from Maine, are now put in closecasks and packed in loam. You will find next May that the potatoes in your cellar at the bottom of you heap are best for cooking.

Potatoes should not be dug till they are quite ripe. The Long Reds are not generally allowed to ripen in the hill; hence they are not fit for eating till they have ripened in the cellar; and you find them in the spring much better than they were when first dug; though ripe potatoes are always best for the table when they are first taken from the earth.

Winter apples must be handled with care. Bruises are detrimental, and warm air will ripen them too fast. The cooler they can be kept the better. Cellars with ice or snow in them are better for apples than the tightest holes you can put them in. No matter how soon they are picked after October comes in.

**SECURING OTHER ROOTS.**—Carrots, parsnips, and beets are believed to be as much better for being covered as potatoes are. It is certain that they may be kept well when covered with earth. Parsnips are not injured by remaining in the ground through the winter; and we hear of some farmers who intend to let some of their carrots, raised for stock, remain in the ground till spring. They propose to cover them with cheap hay or litter three or four inches deep. We have never tried this mode and can give no advice.

Those who have a supply to be fed out through the winter will want them in barn cellars, where they will be handy for feeding. And here they must be made secure from frost. A pile of cheap hay will be found the best article for covering up the roots, for this may be readily opened. Common stock hay will not be much injured by being thrown over a bin of carrots. We must caution young farmers not to pile too many roots of any kind into one heap, since they engender heat and will rot in a short time when they have no air. Roots covered up with loam, or rather buried in loam, are not liable to heat and rot.—*Cultivator.*