

Improved Plan of Kiln for Burning Drain Tiles and Pipes.

From the Mark Lane Express we gather the following information relative to an improved method of burning tiles for agricultural draining.

Almost every tile-yard where the present plan of burning prevails, in large covered kilns, very great inconvenience and delay are often experienced by the difficulty, and in most cases the impracticability, of burning the tiles so as to keep pace with the moulding. And this difficulty is increased by the adoption of machinery, and during the earlier and later parts of the season, when the more fickle state of the weather prevents the tiles from drying, and the sheds soon become surcharged.

There was exhibited at the meeting of the Yorkshire Agricultural Society, by Mr. Charnock, of Wakefield, a Tile Kiln which promises to obviate the inconvenience alluded to.

Instead of the present large kilns, the model consisted of a series of small compartments placed alongside each other; each compartment or kiln, being fifteen feet long by four feet wide, and eight feet high, and holding about 4,000 2 inch pipes, besides the bricks at the bottom. The plan of operating is to burn every alternate compartment, and at the same time to have each compartment between those that are in process of burning, set with either dry or half-dry tiles: so that by the time the tiles on either side are sufficiently burnt, those between are dried up to oven-heat, and the fires may be put under them as soon as the other compartments are ready to draw. Thus with a kiln containing such a number of these compartments as may be found suitable to the requirements of each yard, a constant and regular succession of burning may be kept up simultaneously with the process of moulding, and an opportunity be thereby afforded of clearing the sheds of tiles in an incomplete state of dryness.

The plan is novel and presents advantages and many competent and practical men have concurred in thinking it a valuable improvement. And as Mr. Charnock expressed his readiness to afford every information to parties desirous of adopting it, we shall be curious to learn whether our opinion of its merits is confirmed in practice.

Mr. Charnock stated that his experience had led him to the conviction that it was more economical, and certainly more convenient for the systematic conducting of the works, to burn the pipes in two kilns of smaller size, rather than in one large one containing the same number; and it was in the conviction he believed the extension of that principle might be most beneficially adopted in the form we have endeavored to describe.

Fermentation.

Fermentation was the subject of consideration at the last weekly meeting of the Newark, N. J. Franklin Institute.

Starch may be changed into sugar artificially by mixing it with water, and then throwing in a little sulphuric acid, without which it will not dissolve, and then add something to take out the acid, as common chalk, which is a carbonic acid, and forming a sulphate of lime, or plaster of Paris, which sinks to the bottom of the liquid, leaving the water a syrup, which which may be evaporated and leave the sugar dry. If a little more oxygen be added to this syrup it will then become alcohol.

One part of starch, with 12 parts of water—which must be renewed as fast as it evaporates—will become sugar and gum at the end of a month. A few years ago some persons in London attempted to evade the duty on the manufacture of sugar; instead of making sugar directly, they converted starch into syrup, and instead of drying it to sugar, made what they called honey, which this syrup very much resembles, and thus evaded the duty.

Wheat flour contains gluten and starch, which may be separated by maceration; the gluten assists fermentation.

Molasses, in being transferred to rum will give gallon for gallon.

Wine begins to ferment as soon as the juice comes from the press.

The Inventor of Printing with Moveable Type.

In the city of Strasburg, on the Eastern frontier of France, there stands, in the principal square, a large bronze statue of Guttenberg, the inventor of the art of printing with moveable types. It is a full length figure of that fortunate individual with a printing press at his side, and an open scroll in his hand, with this inscription *And there was light.* Upon the several sides of the high pedestal on which the effigy stands are four tableaux in bas relief, designed to represent the art of printing or the general progress of the world. In one stand the names of the most distinguished scholars, philosophers and poets, of all times; in another the names of those who have been most eminent for their achievements in the cause of human freedom; conspicuous among which is an allusion to our Declaration of Independence, with the names of Washington, Franklin, Hancock, and Adams.

On the third side is a representation of Philanthropy knocking off the fetters of the slave, and instructing the tawny children of oppression in useful knowledge: and on the fourth is Christianity, surrounded by the representatives of all nations, and tribes, and people, receiving from her hand, in their own tongue, the word of Eternal Truth. Christianity! Heaven-born Christianity! Divine Philosophy! look down with indifference or disdain on that bearded man, at work with tools in his smutty shop, away on the Rhine. Affect to overlook and undervalue him as a mechanic? A mechanic? Why out of those bars of wood and pounds of metal, and ounces of ink, he is constructing a machine to make the nations think. The inventive thought and manual skill of that workmen of tools convert him into a greater preacher than Paul, or Ambrose, or Chrysostom. He is constructing wings for Christianity herself, which will bear her with the music of her silver trumpet to all the abodes of men. The secular is transmitted into the religious, for the press gives power and progress to religion, and Christianity rewards with smiles all art which aids her advancement.

Serpents in a Pile in South America.

In the Savannahs of Izacuobos in Guiana, I saw the most wonderful, and most terrible spectacle that can be seen; and although it be not uncommon to the inhabitants, no traveller has ever mentioned it. We were ten men on horseback, two of whom took the lead, in order to sound the passages, whilst I preferred to skirt the great forests. One of the blacks who formed the vanguard, returned at full gallop, and called to me—"Here, sir, come and see the serpents in a pile." He pointed out to me something elevated in the middle of the Savannah or swamp, which appeared like a bundle of arms. One of my company then said, "this is certainly one of the assemblages of serpents, which heap themselves on each other after a violent tempest; I have heard of these but have never seen any; let us proceed cautiously and not go too near." When we were within twenty paces of it, the terror of our horses prevented nearer approach, to which none of us were inclined.

On a sudden the pyramid mass became agitated; horrible hissing issued from it, thousands of serpents rolled spirally on each other shot forth out of their circle their hideous heads, presenting their envenomed darts and fiery eyes to us. I own I was one of the first to draw back, but when I saw this formidable phalanx remained at its post, and appeared to be more disposed to defend itself than attack us, I rode around it in order to view its order of battle, which faced the enemy on every side. I then thought what could be the design of this numerous assemblage, and I concluded that this species of serpents dread some collosean enemy, which might be the great serpent or cayman, and that they re-unite themselves after having seen this enemy, in order to resist him in a mass.—*Humboldt.*

Ancient Dentists.

Among the Romans there were men, mostly all Greek slaves, who extracted teeth and professed to cure the toothache. They supplied the loss of natural by artificial teeth, which were made of ivory and fastened by gold wire.

Russian Marriages.

Marriages in Russia are curious. The priest meets the parties at the door of the church. The relatives also enter, having received the benediction of the priest. They go with him to the altar, where he puts wax candles in their hands—a crown is placed on the bridegroom's head. The priest puts a ring upon one of their fingers, and it is passed round till it is placed on the finger of the bride. He goes round the altar, followed by the friends and the couple—he gives them his benediction. It takes place in the richest churches in Russia. The same ceremonies are performed on a marriage in the family of the Emperor, except that the crown is held above, not placed on their heads. Being once present at a marriage of the royal family, the crown was held up by boys, and it was amusing to see them stretching themselves to hold it up. The music was delightful. I have frequently heard the choir of the Pope, but it is nothing when compared with what I heard at that marriage. I never heard music so touching. Their dresses were beautiful. The bride had a train 12 feet long, made of rich velvet, and lined throughout with ermine and it took five men to bear her train, and as she moved round the altar, followed her. It was attached to her dress below the shoulder. There were many things about it very imposing. The Te Deum was sung most beautifully. There are many singular things connected with their private life. When making a dinner, the host and hostess do not sit, but like Abraham, serve their guests. The gentlemen go up to the ladies and kiss their hands and if they are intimate, the lady kisses his cheek. These are Asiatic customs but there is no doubt in a few years they will pass away and European be introduced in their place.—*Dr. Baird.*

A Mother to Her Daughter on her Marriage.

You are now, my beloved child about to leave those arms which have hitherto cherished you, and directed your every step, and at length conducted you to a safe, honorable and happy protection, in the very bosom of love and honor. You must now be no longer, the flighty, inconsiderate, haughty, passionate girl, but ever, with reverence and delight, have the merit of your husband in view. Reflect how vast the sum of your obligation, to the man who confers upon you independence distinction, and above all, felicity. Moderate then, my beloved child, your private expenses, and proportion your general expenditure to the standard of his fortune, or rather, his wishes. I fear not that, with your education and principles, you can ever forget the more sacred duties, so soon to be your sphere of action. Remember the solemnity of your vows, the dignity of your character, the sanctity of your condition. You are amenable to society for your example, to your husband for his honor and happiness, and to Heaven for those rich talents entrusted to your care and your improvement.

Chinese Grass.

There is in China an article grown and manufactured into clothing, no description of which is to be found in any of the works of travellers who have been in that country. Its native name is *Mae* and it answers the purpose of silk and hemp combined. It is an annual, sown in drills, in February, and gathered in August. It grows on dry hilly soil, like tea, all over China, and in every variety of climate—much of it within two or three day's journey of Canton. Its consumption is enormous; it may be found in its various degrees of quality, among all classes of the vast population, worked into almost every description of fabric; in the largest cables of their junks and in the choicest texture of clothing worn by the luxurious classes. Like silk, it is there an article of universal consumption. There is no article at present known in the country that could be substituted for it. It is scarcely exported at all.

Dancing.

A gentleman describing the absurdity of a man's dancing the Polka, appropriately said, "that it appeared as if the individual had a hole in his pocket and was futively endeavoring to shake a shilling down the leg of his trousers."

Foreign Items.

At the meeting of the Paris Academy of Science on the 20th Dec, M. Le Verrier read a paper on the periodical comet discovered at Rome in August 1844 by M. Vico. M. Le Verrier is of opinion that the periodical comets of 1844 and 1770 are two different bodies, and not identical, as supposed by some astronomers. He also thinks that there is no identity with the comet of 1585 as supposed by M. M. Laugier and Mauvais.—A note was communicated from M. Vico, announcing the disappearance from the heavens of three stars of different magnitudes which had been marked on the celestial charts. Several letters were received giving an account of an aurora borealis seen in the evening of the 17th ult., in the departments of the Seine, Seine-Inferieure, Seine-et-Marne. and Loire-Inferieure.—A letter was received from M. Perro, an engineer of Piedmont, giving an account of the working of clocks on the compensation system laid down by M. Laugier. M. Olin gave an account of a new break for railway carriages which, he says, has an instantaneous action, whereas on all the other breaks there is a loss of 10 or 12 seconds during which the train may advance more than 150 yards. A letter was received from M. Guenard, a farmer, communicating some successful experiments with the use of salt as a manure in the growing of corn.—A paper was received from M. Schneider of Strasburgh, on the manufacture of Sulphuric acid without the use of leaden chambers.

Humorous Inventions.

The Victoria Pap spoon. This spoon feeds the babies, serves as a baby jumper, rocks the cradle, draws the baby wagon, plays with the poodles, takes paregoric, and washes out diapers. As a nursery assistant it is indispensable.

Egg Hatching Machine.

The system of artificial incubation or hatching eggs by artificial means is revived by Mr Cantelo, at the Cosmorama rooms in Regent st. The present plan is a great improvement of the "Eccaleobion," which was simply an India-rubber machine, which is filled with hot water, and it being placed upon the eggs they are kept at an equal temperature of heat and the result in every instance has been most successful, as only a small per centage of the eggs are lost. His exhibition has attracted much attention.—*Jerrold's Mag.*

This does not yet equal the Illinois machine of a barrel full of eggs and the hen on the bung hole.

The latest invention for juveniles, (an accompaniment to the baby-jumper,) is a sort of mill turned by a crank, by which three children can be licked at a time. By the aid of this machine too, much labor is expected to be saved to the school teacher in the discharge of his arduous duties.

How we Look.

How we appear to other people's eyes, is an oft proposed query, yet one that cannot be hardly satisfactorily answered.

"If Providence the gift would gie'us To see ourselves as others see us,"—we should think we were looking through the wrong end of the telescope at our virtues, and had a highly magnified view of our vices—we should at least, did we look with some people's eyes,—others might flatter us, even more than our own.

At a late sale in London the auctioneer in offering for sale some busts of Shakspeare and Milton, described them to be portraits of two of the most brilliant stars of the age.

There are many hours in every person's life which are not spent in anything important: but it is necessary they should not be passed idly.

Great men like great cities, have many crooked parts and dark allies in their hearts, whereby he that knows them may save himself much time and trouble.

Earthenware is glazed with lead, acids dissolve it, and is therefore dangerous to be used for domestic purposes.

Pickles and vinegar should never be kept in earthenware dishes. Stoneware or wood vessels are best.