

fourscore he had lived? When he replied, two.

"You have been in many battles in your time?" The old man told him he had.

"But," said he, "there is another battle you must pass through."

"I suppose so," quickly answered the veteran.

"I hope you will be prepared for it," said the gentleman.

"Oh! as to that," replied he, "I have been a very good sort of man, and never did any person any harm, and I have always sent my parents a half-sovereign whenever I have been able."

"But, my good man," said the gentleman, "that won't take you to heaven."

He tartly replied, "It won't take me to the other place, will it?"

"No," answered he, "I didn't say it would."

After a pause, the old man angrily replied, "I am a Churchman, and have all my life belonged to the Church, and I am not going to turn Dissenter for any body; so you needn't try to make me one!"

"My good friend," said the gentleman, "I am a Churchman myself—a Dissenter, a Baptist. In short, I belong to any thing that is good."

The old pensioner, however, seemed reluctant to pursue the conversation further, fearing that, if he did, he might become a Dissenter!

Scientific.

Probable Future Substitutes for Coal, &c.

We have a confident hope, however—or rather a firm belief—that long before our coal-fields are really exhausted, discoveries will be made, both of new motive powers and new sources of heat or caloric, which will make all future generations independent of those clumsy and dingy resources. Motive power, we think, will probably be supplied, either directly by such omnipresent and inexhaustible elements as electricity and galvanism, or by the employment of some gas, far more elastic than steam and capable of being called into action, and again condensed by slight mechanical impulses, or by changes of temperature, incalculably less than are now necessary for the management of that comparatively intractable substance; but, even if we should still require to use steam; we are persuaded that means will be devised for its generation, or rather for the production of evolution of heat for that and all other purposes far less operose, indirect, and precarious, than the combustion of coal. This may probably be effected without any process of combustion at all; either by the great agents of galvanism or electricity already referred to; or by the friction, hammering, or rolling of solid and practicable indestructible bodies; or by the forcible compression of common air, or of other elastic fluids; or by the chemical combination of different substances; while, if combustion must still be resorted to, might it not be constantly maintained without the tremendous expense of the working and transportation of fuel, by merely contriving a method of burning the inexhaustible, omnipresent, and eternally reproduced element of hydrogen, as it exists in the great ocean, and in all our lakes, rivers, fountains and tanks, and tubs of rain water, with the equally omnipresent, inexhaustible, and reproduced oxygen of the circumambient atmosphere? These, we are aware, may not strike many (perhaps most) people as mere Utopian or Laputan fancies; and undoubtedly they are, as yet, but vague and general suggestions. But when we consider how much wider and more audacious (as less warranted by any analogous experience) similar anticipations of electric telegraphs, photographic painting, or railway locomotives, must have appeared but fifty years ago, we really cannot consent to put them in such category; but, on the contrary, confess to a certain feeling, both of pride and confidence, in thus recording what we cannot but consider a truly prophetic, though it may be but a dim and indistinct vision, of a good and glory to come.—*Edinburgh Review.*

Good Ventilation.

You should have, if possible, a pipe connected with the air without, passing behind the cheeks of your stove, and opening under your fire, about, on, or close behind your hearth. They say that from this source the fire will be supplied so well, that it will no longer suck in draughts over your shoulders

and between your legs from remote corners of the room. They say, moreover, that if this aperture be large enough, it will supply all the fresh air needed in your room, to replace that which has ascended and passed out, through a hole which you are to make in your chimney near the ceiling. They say that, an up-draught will clear away this air so quietly, that you will not need even a valve; though you may have one fitted and made ornamental at a trifling cost. They would recommend you to make another hole in the wall opposite your chimney, near the ceiling also, to establish a more effectual current in the upper air. Then, they say, you will have fresh air, and no draughts. Fresh air, yes, at the expense of a hole in the floor and two holes in the wall. We might get fresh air, gentlemen, on a much larger scale by pulling the house down. They say, you should not mind the holes. Windows are not architectural beauties, yet we like them for admitting light; and some day it may strike us that the want of ventilators is a neighbor folly to the want of windows.

Sponge the Basis of Flints.

The mere assertion that flints are sponges would no doubt startle the reader who was unacquainted with the history of these fossil relics of a former ocean; but we apprehend that a little reflection will satisfy the most sceptical of the truth of this strange announcement. Imbedded in the substance of the chalk, which, during long periods, by its accumulation had continued to overwhelm successive generations of marine animals, the sponge have remained for centuries exposed to the water that continually percolates such strata; water which contains silicious matter in solution. From a well known law of chemistry, it is easy to explain why particles of similar matter should become aggregated, and thus to understand how, in the lapse of ages the silicious spicula that originally constituted the frame work of a sponge, have formed nuclei around which kindred atoms have constantly accumulated, until the entire mass has been at last converted into solid flint. We are, moreover, by no means left to mere conjecture or hypothesis upon this interesting point—nothing is more common in chalky districts than to find flints, which, on being broken, still contain portions of the original sponge in an almost unaltered condition, and thus afford irrefragable proof of the condition of the entire mass.

To Transfer Engravings to White Paper—A New Invention.

Place the Engravings for a few seconds over the vapour of Iodine. Dip a slip of white paper in a weak solution of Starch, and when dry, in a weak solution of Oil of vitriol.—When dry, lay a slip upon the engraving, and place them for a few minutes under a press. The Engraving will thus be reproduced in all its delicacy and finish. The Iodine has the property of fixing on the black parts in ink on the engraving, and not on the white. This important discovery is yet in its infancy.—*Builder.*

New Use of Castor Oil.

Candles, in many respects superior to those made of Spermaceti, are now being manufactured from Castor Oil, and being brought into general use.

To make Cucumber Pickles.

Soak the cucumbers three or four days in old, sour cider, or two parts water and one vinegar; then place them in the pickle-jar; heat good cider vinegar scalding hot, with an ounce of alum to a gallon of vinegar, with any kind of spices, and in such quantities as suits the taste; pour it over the cucumbers while boiling hot; cover them tight, set them in a cool place, and if the vinegar is right they will keep till June, when the old vinegar should be discarded and new substituted. Pickles made in this way are always crisp; the alum hardens the skin of the cucumber, so that it never turns soft. Those made in this way a year ago are in excellent condition now.

To Measure Hay in Stacks.

"More than twenty years since," says an old farmer, "I copied the following method of measuring hay, from some publication, and having verified its general accuracy I have bought and sold by it, and believe it may be useful to many farmers, where the means of weighing are not on hand. Multiply the length, breadth, and height into each other, and if the hay is somewhat settled, ten solid

yards will make a ton. Clover will take from ten to twelve solid yards per ton.—*Boston Traveller.*

The Farm.

THE FARMER—A BEAUTIFUL PICTURE.

BY HON. EDWARD EVERETT.

The man who stands upon his own soil, who feels that by the laws of the land in which he lives—by the laws of civilized nations—he is the rightful and exclusive owner of the land which he tills, is by the constitution of our nature under a wholesome influence, not easily imbibed from any other source. He feels—other things being equal—more strongly than another, the character of a man as the lord of the inanimate world. Of this great and wonderful sphere, which fashioned by the hand of God, and upheld by his power, is rolling through the heavens, a portion is his—his from the centre to the sky. It is the space on which the generation, before him moved in its round of duties; and he feels himself connected by a visible link with those who follow him, and to whom he is to transmit a home. Perhaps his farm has come down to him from his fathers. They have gone to their last home; but he can trace their footsteps over the scenes of his daily labors. The roof which shelters him was reared by those to whom he owes his being. Some interesting domestic tradition is connected with every inclosure. The favorite fruit-tree was planted by his father's hand. He sported in his boyhood beside the brook which still winds through the meadow. Through the field lies the path to the village school of earlier days. He still hears from his window the voice of the Sabbath bell, which called his fathers and forefathers to the house of God, and near at hand is the spot where his parents laid down to rest, and where, when his time is come, he shall be laid by his children. These are the feelings of the owner of the soil. Words cannot paint them—gold cannot buy them; they flow out of the deepest fountains of the heart; they are the life-spring of a fresh, healthy and generous national character.

Remarks on Wheat Culture.

All lands, with a subsoil impervious to water, will have out wheat on the breaking up of winter. It is caused by the surface soil being surcharged with water, which the night frost congeals, forming an infinity of icy pillars raised two or three inches, above the surface, with the wheat plants embodied in them, and torn up by the roots; the succeeding day thaws the ice, and leaves the wheat on the surface to perish. Whenever wheat is much heaved out, it rarely escapes the rust, and the crop is either destroyed or greatly injured. The first object of the agriculturist, in such soils especially, should be to draw off the surplus water. He will so plough the fields in such lands, that the last furrow on being opened by the plough, after harrowing, will drain off the water. No water should stand on a wheat field. The spade and shovel should both be freely used. But after all this is done, he will find it only a partial preventive. Sub-soil ploughing would be highly beneficial in such cases; as that would give a greater depth for the water to sink from the surface. The sub-soil plough is an important implement of the age. But the most effectual, though it is the most expensive preventative, is under draining. All the superabundance of water can be readily discharged by under-drains.

Early sowed wheat is less liable to freeze out than late, but is more subject generally to the attacks of the fly. The Rochester wheat, called in this county the white chaff bearded, requires to be sowed early—from the first of September till the 20th. The red chaff may be sowed much later on an inferior soil, and succeed well; but the fly is more destructive to it than any other. The Mediterranean wheat, so far as it is known to me, resists the fly better than any other kind, and being about ten days earlier is not liable to rust; but it is much endangered by late frosts in the spring, and it would be advisable, if it be rank in the early part of March, to feed it off with sheep or calves. I greatly prefer the Rochester wheat to the Mediterranean, on a wheat soil that is in good order. But it should never be sowed on fields which heave out wheat much; or late in the season. It is highly important to sow wheat in good season, that it may have time to take deep root, to resist heaving out, and I recommend it to be done if your ground should be considerably too wet. The succeeding winter will prevent its baking. But them.

the same practice would be very deleterious in the spring.—*Mr. Pow's Address before the Mahoning County, O., Ag. Society.*

Apples as Food for Animals.

The value of apples, as a feeding and fattening crop, is greatly overlooked by a large portion of the farming community. It has been estimated by those who have paid attention to the subject, that two bushels of apples are equal in value to one bushel of potatoes, and that two bushels of potatoes are equal to a bushel of corn. This is an approximation to their relative value, and near enough for all the purposes of the farmer.

When we consider the ease with which apples can be produced, and the quantity that can be grown on a given quantity of land, compared with other crops, they can hardly fail of being admitted as an important item in farm husbandry. An apple tree of medium age and size, will produce an average of ten bushels of fruit a year, and will not occupy, to the exclusion of other crops, more than two square rods of ground. Two square rods, if planted with potatoes, would not yield, on an average, more than a bushel to a rod—which, with all the appliances of ploughing, seed, hoeing, gathering, will not be worth over from one to two shillings per bushel, while the two rods or ground occupied by the tree, without a moment's labour, or care, gives ten bushels, and often a much greater yield, and is worth for feeding five times as much as the produce in potatoes or any other crop.

All wormy and wind fallen apples in the orchard, should be gathered once a week, and fed to the hogs for two or three good reasons to destroy the larvæ of the future insect, that have got domiciled on your premises—to give your hogs a start preparatory to being yarded for pen fattening, and to have a clear bottom for the final gathering for winter use.

Apples cooked with potatoes give a relish to the mess, that the animals easily exhibit over the potatoes alone, and should be thus fed after the hogs are put up; and we think where apples are freely used that the swill should not be allowed to sour and pass into the vinous fermentation, changing the saccharine into spiritous matter.

In travelling through the New England States, one cannot but be struck with the great lack of orchards; rarely are to be seen young and thrifty trees, regularly planted out, but mostly old straggling patches, moss-covered and decaying. Many large orchards have been cut down, during the crisis of the temperance fever, for conscience sake—a more mistaken policy than which fanaticism, never enforced. The corn, the rye, and the wheat might with equal reason have come under the ban of the reformers, and an ukase been promulgated for their annihilation, as they equally contribute to form intoxicating drinks.

Sheep and horses feed and thrive well on apples, and never choke. If you cannot get three dollars a barrel for cider, better feed them, or sell by the barrel all the cultivated varieties, or use them in the family. They are nutritious, healthy, and the cheapest food the farm produces.

Feeding Poultry.

The following method, from the Transactions of the Essex County Agricultural Society, will be found a good one:—Once a day, in summer, feed on a mixture of corn and barley, or corn and oats. This will be sufficient, if your fowls have a large enclosure, where they can obtain gravel, insects, worms and green food; if they are confined to a small space, these substances must be supplied them liberally. In winter, keep corn, mixed sometimes with oats, constantly before them, as well as pounded oyster shells, burnt bones or clam shells; occasionally, give boiled potatoes, mashed and mixed with Indian meal or bran—warm, but not hot. Let them have wood ashes, to dust themselves in; and an abundance of clean water, fresh every day; in freezing weather, the water should be lukewarm. Chickens require no food for the first twenty-four hours after they are hatched; we have, however, been in the habit of giving them water, in about twelve hours from the time they leave the shell. After the first twenty-four hours, for the two succeeding months, give cracked corn, dry, three or four times a day; occasionally vary their food by giving sometimes cooked meat, chopped fine, and sometimes crumbs of bread. We think dry food much better for young chickens, than dough, or any substance mixed with water. An abundance of clean water should be constantly before them.