

Temperance.

AN APPLE OF GOLD.

The veteran temperance lecturer, Dr. Jewett, has been speaking again in Boston and vicinity, with his accustomed wit and eloquence. We heard an anecdote of him the other day, which is too good to be lost. In the course of his travels, with his own horse, he one day entered a country tavern, and sat down by the bar-room fire to warm his fingers. His keenly roving eye soon discovered prominent over rows of bottles with highly colored contents, in large letters, the inscription, "No credit given here." Turning to the landlord (to whom he was personally unknown,) he said "Ah! I see that you bring your people square up to the mark here!" "Yes," replied the landlord; "it's no use to trust rum-customers now-a-days. We must get it as we go along, or never get it." Jewett warmed his fingers a while, and then turning to the other, said—"I think I could add a line or two to your inscription that would make it very nice."—"What would you add?" inquired the landlord. "Give me a pen and a piece of paper, and I will show you." "Walk into the bar; there's a pen and ink—help yourself." The Doctor walked into the bar, and taking up a pen, wrote as follows:

"No credit given here,
And yet I've cause to fear,
That there's a Day-Book kept in heaven,
Where change is made AND CREDIT GIVEN!"

Laying down the pen and leaving the lines, he walked to the fire, and again sat down, expecting an explosion. The landlord, whose curiosity was somewhat moved, went behind the counter and read what he had written. A pause of some minutes ensued, when the Doctor, glancing round, saw to his great pleasure, and somewhat to his surprise—from the intimations of dampness about the eyes—that he had driven a nail in a "sure place." "A word fitly spoken, how good is it."—*Cor. Independent.*

The Right Talk.

Some of the people in North Carolina are terribly frightened at the most remote allusion to law interference in support of temperance, but are perfectly content that the liquor traffic should be countenanced and supported by the laws of the state. They want drunkard making to be under the patronage of the state. To all this the Raleigh Spirit of the Age very justly says:

"We do not desire any special enactment of our Legislature or any other law-making power in behalf of temperance—indeed, we would not have it to be given—but we do ask for the withdrawal of legislative sanction and enactments in behalf of the enemies of temperance. We want the liquor traffic to stand on its own merits, stripped of the respectability attached to it, on account of its being a state institution, for every grog-shop-keeper in North Carolina is now as emphatically an officer of the state as are the governor and supreme court judges. If the liquor traffic is so necessary an appendage to good society, let it live as do all other professions, upon its own worth and intrinsic excellence. Strip it of the legal right and power with which it is invested and leave it free to be assailed without being entrenched behind the law. If a physician administers arsenic to a patient knowing that it will produce death, he would be tried and punished as a murderer!—If a gun smith sells a weapon charged with a deadly load, without apprising his customer of its contents, and he slay himself or his neighbor with it, the smith would be held responsible for the deed and be punished accordingly. If an editor or author give publicity to statements that will injure the fair fame and character of a fellow citizen, he will receive condign and summary punishment. So would we have the liquor dealer amenable for his works. He is daily and hourly administering a deadly poison to his victims who are falling by hundreds into a drunkard's grave; but he is ensconced behind the law, and shakes his license to do his work of death in the face of an outraged community, in utter defiance. From his loaded bottles charged with "liquid damnation," he sends his customers into a dishonored and untimely grave, and defies the suffering survivors to help themselves, because he is empowered, authorized, chartered to do this very thing. He is squandering the property and blasting the reputation and prospects of husbands, fathers, and sons, and degrading and impoverishing the wives and daughters of our country, but, forsooth, he is the officer of the State, entrusted with this work, and to whom can you apply for relief?"

Scientific.

THUNDER AND LIGHTNING.

These sublime and terrific phenomena are well known to every individual, and are occasionally displayed in every region of the globe. A thunder-storm usually happens in calm weather, though sometimes it has been accompanied with furious winds. A dark cloud is observed to attract other clouds to it, by which it continually increases both in magnitude and apparent density; and when it has thus accumulated to a great size, its lower surface swells in particular parts toward the earth, and light flimsy clouds are sometimes seen flying under it, and continually changing their ragged shape. During the time the cloud is thus forming, the heavens begin to darken apace, the whole mass sinks down, wind arises, and frequently shifts in squalls, flashes of lightning are seen to dart from one part of it to another, and often to illuminate the whole mass and the surrounding landscape. When the cloud has acquired a sufficient expansion, the lightning strikes the earth in two opposite points; its paths lying through the whole body of the cloud. Heavy rains, and sometimes hail-showers accompany these dire phenomena, till, after numerous successive discharges, the cloud rarefies, and the storm ceases. The scene of a thunder-storm is generally in the middle regions of the atmosphere; and it is not a frequent case that an electrical discharge is made into the earth. The lightning darts from one cloud to another, and when the clouds are high, there is no danger to persons or objects on the surface of the earth. But when the cloud is low, and within the striking distance of the earth, when the flashes appear to strike perpendicularly, and when only a second or two elapses between seeing the flash, and hearing the report of the thunder, every object around may be considered as within the limits of danger; for then the lightning strikes into some part of the earth, and every object in the line of its course is liable to be injured. We may ascertain the distance of a thunder-cloud, by counting the number of seconds or pulsations that intervene between seeing the lightning and hearing the first sound of the thunder, allowing about 1,142 feet or 380 yards for every second. Thus, if two seconds intervene, the distance is 760 yards; if three seconds, 1,140 yards; if four and a half seconds, 1,710 yards, or nearly a mile, &c. During a thunder-storm, the lightning sometimes assumes different forms. Sometimes it appears as balls of fire, moving with great velocity: this is the most dangerous species of lightning, and where they strike, corn yards are set on fire, and sometimes flocks of sheep, herds of cattle, and human beings, are instantly killed. Another form is that of zig-zag lightning, which most frequently accompanies thunder-storms. It is likewise destructive, but not to the same extent as the ball lightning. The next species is the sheet lightning, which appears in the form of a lambent flame, or a sudden illumination, without any determinate form. It is never known to do any injury.

As to the cause of thunder-storms, it is now ascertained, beyond dispute, that lightning and electricity are identical. This had been long ago surmised, after the attention of philosophers had been directed to the subject of electricity. It was observed that lightning in its course, took the best conductors of electricity, such as bell-wires and gildings; that it burned, exploded, and destroyed conducting substances, as electricity does; that it struck the most elevated objects, as trees and spires; that the crooked form of zig zag lightning was similar to that of an electric spark; and that it affected the nervous system, and changed the polarity of the mariner's needle, as electricity was found to do. This was, at last, put to the test of experiment by Dr. Franklin, by elevating, during a thunder-storm a kite, with a metallic point on the head of it, when he drew an electric spark from the cloud by means of a key, connected with a wet string, which was connected with the kite.

MAXIMS DURING A THUNDER-STORM.

When in the open fields, avoid trees, but be near them—say at a distance of thirty or forty feet—as high objects are more likely to be struck with lightning than those that are low. When walking in the open air, avoid ponds, rivers, streamlets, and every mass of water; for water, being a conductor of electricity, might determine the lightning to the place we occupy. Do not avoid rain, as it is safer, in a thunder-storm to be completely drenched than otherwise. When in a house,

persons should avoid sitting near the fire-place, as it brings us in connection with the highest part of the building, and which contains such conducting substances as the grate, the fender, and fire-irons. Bell-wires, mirrors, gildings, lustres, and other metallic substances, should also be avoided. The safest position is the middle of a large room, at a distance from conducting substances, with our chair placed on a mattress.—*Dick on the Atmosphere.*

HOW TO ACT IN THUNDER-STORMS.

At this season of the year, when we are so often visited with thunder-storms, it is our duty perhaps to warn parties from sheltering under trees of hard wood, which generally attract the electric fluid. Soft wood is not so dangerous, and indeed, the beech-tree is said to be a non-conductor of lightning. So notorious is this fact, that the Indians, whenever the sky wears the appearance of a thunder-storm, leave their pursuits, and take refuge under the nearest beech-tree. In Tennessee, the people consider it a complete protection. Dr. Beeton, in a letter to Dr. Mitchell, states that the beech is never known to be struck by the atmospheric electricity, while other trees are often shattered into splinters. May not a knowledge of this fact afford protection to many when exposed?

The Farm.

IMPROVEMENT OF DOMESTIC ANIMALS.

Few are aware how susceptible of improvement is the living machinery which elaborates milk for nearly every family in the Union.—There is a reliable account in this report, of a dairy of forty-one cows kept in the State of New York, which yields \$62 in butter, cheese and milk, as the product of each cow a year. From the returns of the last State census, it is safe to say that 1,100,000 cows are now milked in that State, which are supposed to yield \$20 per head. To improve these up to an average annual product of \$31 each, (that is, to one-half what the best large dairies in the country now yield,) would add \$12,100,000 to the income of the citizens of a single State. This gain by the improvement of one kind of rural machinery would be equivalent to creating a capital of \$200,000,000, and placing the money where it would yield over 6 per cent interest in perpetuity. If the 30,000,000 of sheep in the United States gave as good return in wool for the food consumed, as the best 100,000 now do, it would add at least 60,000,000 pounds to the annual clip of this important staple.

In one of his letters to Sir John Sinclair, General Washington says, in substance, that at the time he entered the public service in the war of the Revolution, his flock (about 1,000) clipped five pounds of wool per fleece. Seven years after, when he returned to his estate, his flock had so degenerated that it gave an average of only two and a half pounds per head, which was the common yield of Virginia sheep then, as it is now.

Although the numerous importation of superior sheep, cattle, horses and swine have greatly benefited the country, it must be admitted that much has been lost by suffering improved animals to deteriorate. Every wool-grower should ponder well this fact. If 2½ pounds of wool will pay the whole cost of keeping a sheep a year, 5 pounds will pay 100 per cent profit on that cost. Washington was eminently a "book farmer," and was anxious to gain knowledge from the educated agriculturists of Europe and of his own country.—His overseer believed in keeping sheep as his father did, and was opposed to all innovations in husbandry.

There are now not far from 6,000,000 horses and mules in the United States; and it is not too much to say that, in a few generations, those animals may be improved full \$30 a head on an average. If so, the gain by this increase of muscular power, and its greater durability, will be \$180,000,000. If we study critically the machinery for converting grass, roots and grain into beef and pork, the difference is found to be still more striking. If the facts relating to this subject were spread before the people, great improvement would soon follow, and all classes share equally in the profits of more productive labor.—*U. S. Patent Report.*

TILLING ORCHARDS.

All fruit trees experience great advantages from the tilling of the earth, even if no manure is applied, by keeping the ground free and open to the influence of heat, water and air. When the grasses form a firm and com-

pact sod over the entire roots, they not only absorb a great portion of the nutriment required by the tree, but from the close and fibrous nature of the grass roots, they absorb and keep back all the water that falls in ordinary summer showers, depriving the tree, which, from the great exertion required to produce fruit and make new wood, needs all and often more during certain periods, than nature supplies.

Timothy grass is the least objectionable for an orchard, as it alone never forms a very close interwoven sward; only increasing by offsets like wheat, it exists in clumps. White clover belongs to the same class of non-combatants of fruit trees; as its roots skim the surface and never penetrate deep, they have a tender permeable sward. Red clover, perhaps, maintains the most open and porous soil of any of the articles used for stocking or rotating crops; but still it is esteemed as having a very deleterious effect on orchards, particularly on young trees, as the roots penetrate deeply, and dispute the possession of the moisture and nutritive gasses belonging to and necessary for the life and existence of the tree.

But those grasses that increase by snake-heads or runners under ground, like June, quack, red top and various others, are the most decidedly detrimental, from their imperious compactness and hard feeding on the soil.

Young orchards should be kept under the hoe till the trees acquire a strong healthy growth, and begin to bear cleverly, when they may be rotated with grain and grasses; and in manuring for corn and other hoed crops, manure the trees and hoe and dress them out as carefully as you would the corn plants.

In ploughing be careful to shallow the furrow near the roots, which reach as far or farther than the tops do, or you not only cut off the supplies of the tree, but cause the broken roots to send up a multitude of suckers, detrimental to the fruit, and troublesome in cultivation.

Where grass has got possession of an orchard or fruitery, and it is not convenient to cultivate it, a very good process is to give a strong coat of chip manure, straw or injured hay from stacks, so thick as to smother the grasses and cause the turf to rot. Care must be taken in the fall to clear it away from the base of the tree, to deter the depredations of mice.

Many persons think if they throw rotting vegetable substances a foot or two around the tree, that they have done a clever thing, but it is a great mistake; the roots extend many feet, and the spongioles or absorbents are mostly at the extremity of the roots, and not immediately about the hole or neck of the tree.—*Rural New-Yorker.*

CURRANTS AND GOOSEBERRIES.

There is not a more beautiful shrub growing than the currant, properly propagated; and the same may be said of the gooseberry. But to put out a parcel of old roots, thrown into the street by a more intelligent neighbor, is but a poor way, and will as poorly repay the cost and trouble. Cultivators who pay any attention to the subject, never allow the root to make but one stock, or, as the English say, "make them stand on one leg,"—thus forming a beautiful miniature tree.

To do this, you must take sprouts of last year's growth, and cut out all the eyes, or buds in the wood, leaving only two or three at the top; then push them about half the length of the cutting into mellow ground, where they will root and run up a single stock, forming a beautiful, symmetrical head. If you wish it higher, cut the eyes out again the second year. I have one six feet high. This places your fruit out of the way of hens, and prevents the gooseberry from mildewing, which often happens when the fruit lies on or near the ground, and is shaded by a superabundance of leaves and sprouts. It changes an unsightly bush, which cumber and disfigures your garden, into an ornamental dwarf-tree. The fruit is larger and ripens better, and will last on the bushes, by growing in perfection, until late in the fall.

The mass of people suppose that the roots make out from the lower buds. It is not so;—they start from between the bark and wood, at the place where it is cut from the parent root.—*Vt. Chronicle.*

A LITTLE PARAGRAPH WITH A BIG MORAL.—"I can't find bread for my family," said a lazy fellow in company, "Nor I," replied an industrious miller, "and therefore I am obliged to work for it."