The Maine Law in Canada.

We need, says the Canada Christian Advocate, the Maine Law, or some more stringent measure, to arrest the fearful progress of intemperance. We need it not only to save inveterate drunkards from being frozen to death, but to keep our young men from being drunkards, and our young women from becoming prostitutes. We need it not only to prevent broils in families, public disorders—to dry up the widows' tears, and clothe and educate the ragged and ignorant children of the inebriate—but to save the nation from pestilence and famine—from the just judgments of Jehovah. God deals with nations as he does with individuals; and unless the nation of which we form a part does not repent of its national sins, and frame its laws in accordance with the Divine Law, it must incur the penalty of that law. There is no greater evil than intemperance. There is no one business more destructive to the temporal and eternal interests of the human family than the liquor business. It spreads desolation far and wide, and, like the deadly simoon, sweeps over this fair land, and the high and the low, and the proud and the humble, wither and die before its burning breath. It is a national sin; and if the nation would clear its skirts of the blood of its subjects, and stand before Heaven justified, it must wipe out from its statute book those laws which license this monster fiend to curse our land, and banish at once and forever the cause of all this sorrow, woe, misery, lamentation, and temporal and eternal death.

New Smoke Consuming Grate.—Dr. Neil Arnott, to whom the public owe the invention of the stove which bears his name, the water-bed, the chimney shaft ventilator, and several other ingenious and useful contrivances, has recently effected improvements upon the principle of Cutler's stove, whereby, at a very moderate expense, ordinary fire-places can be made to consume their own smoke, while the amount of fuel requisite to maintain an agreeable temperature in an apartment is greatly economized. These results are attained by the simplest means, and the fire, once ignited, requires no feeding and hardly any attention throughout the day. The supply of fresh coals is put in below, the coked cinders left from the previous day's consumption being piled at the top and igniting readily. A rod attached to the bottom of the grate (which is moveable) and descending from it perpendicularly into the hearth, is raised, as occasion requires, by a lever, thus carrying the coals upwards, where, in contact with the superincumbent embers, they gradually distil their gases. These gases, instead of passing away as smoke, and being wasted, are consumed while struggling to escape through the fire above them. In the grates at present used fresh fuel is always supplied at the top of the grate, where 3-4ths of it is entirely lost for heating purposes.—At every fresh resort to the scuttle the cheerful appearance of the fireplace is destroyed; the poker is constantly resorted to for relief. Tongs and shovel are also necessary adjuncts to the hearth, and, besides the internal discomforts, everybody knows that this is one of the chief causes of the murky atmosphere in which the inhabitants of all our large towns are compelled to live. Cutler's stove was invented many years ago to obviate these evils, but, though the principle involved in it, that of kindling the fire at the top and supplying the fuel from beneath, was the sound one, the mechanical details were so defective that it fell into disuse. Dr. Arnott secures the same results by the simplest means, and he has also applied an important feature to the original invention by giving to the connexion between the grate and the chimney shaft a funnel-shaped form, terminating in a throttle valve. This valve can be regulated to any size, and gives the occupier of an apartment complete control over the current of air passing up into the chimney. For want of that control, and from our chimneys being constructed of such an unnecessary size, the waste of fuel and the different forms of the smoke nuisance are greatly aggravated. The common stove overcomes these evils, but then people could not bear to be shut out from the cheerful blaze of the hearth to which they had been accustomed, and there were other objections to it equally well founded. Dr. Arnott's new grate interferes with no existing prejudice, diminishes the trouble so far as to be almost self-acting, consumes the gases hitherto wasted, leaves the external air untainted, effects a saving of at least one-half in fuel, and can be applied to nearly all fireplaces at a trifling cost. In relation to the recent extravagant price of coals, it may be interesting to householders to know that with this grate 18lb. of coal will keep a moderate-sized room at a temperature of 65 degrees for 24 hours.—*London paper.*

Pleasure.—Blessed be the hand that prepares a pleasure for a child! for there is no saying when and where it may again bloom forth. Does not almost every body remember some kind-hearted man who showed him a kindness in the quiet days of childhood? The writer of this recollects himself at this moment a bare-footed lad, standing at the wooden fence of a poor little garden in his native village; with longing eyes he gazed on the flowers which were blooming there quietly in the brightness of a Sunday morning. The possessor came forth from his little cottage—he was a woodcutter by trade—and spent the whole week at his work in the woods. He had come into his garden to gather flowers to stick in his coat when he went to church. He saw the boy, and breaking off the most beautiful of his carnations—it was streaked with red and white—gave it to him. The carnation has long since withered, but in the mind of that boy it now blooms afresh.—*Douglas Jerrold.*

Never Dispair.—Ten years ago Professor Morse was just erecting the first experimental line of Telegraphs, between Washington and Baltimore. Professor Morse, like all scientific benefactors, had exhausted his means, and had become as poor as Lazarus, and as lean and hungry looking as any veritable Calvin Edson you ever saw. One day while eating a sumptuous dinner of bread and molasses under the shade of a tree, about two miles from Washington, Amos Kendall approached him with such a lean and hungry look, that he at once divided his dinner with him, and before it was concluded he gave the dilapidated Postmaster General an interest in his telegraph Patent, which has since made these two shadows of a shade, corpulent with wealth. They now "have lands and beeves," like master Robert Shallow, Esquire. There are now 41,392 miles of telegraph wires in this country, with a capital stock of $6,671,800. Professor Shaffner is about perfecting a system of union and concert of the various lines in this country, with the prospect of an ocean line soon to be laid, connecting us with the Transatlantic Telegraph; so that the close neighbourhood of nations may be considered as settled.—*N. Y. paper.*

Sir Charles Napier.—Sir Charles Napier was born on the 6th of March, 1786, and is the eldest son of the Hon. Charles Napier, of Murchiston Hall, in the county of sterling, a captain in the Royal Navy, by his second wife, Christian, daughter of Gabriel Hamilton, Esq., of Westburn, Lanarkshire. The gallant Admiral is grandson, by a first marriage, of Francis, fifth Lord Napier, brother to Colonel Thomas Erskine Napier, and cousin to Lord Napier, R. N., who, in 1834, died in China, to the late distinguished soldier, Sir C. J. Napier, and to Major Gen. Sir W. Napier, the historian of the Peninsular War.

Sir Charles entered the navy in 1799, on board the *Martin* sloop, as a midshipman before he was 14 years old, and has seen a very large share of active service. In 1846 he was promoted to the rank of Rear-Admiral; and in May, 1853, he obtained his present station of Vice-Admiral.

The Farm.

HORTICULTURE.

[As this is the proper season of the year for transplanting trees, the following directions extracted from the "Albany Cultivator" are just in point. A careful observance of these simple rules will be found to be of immense advantage to those who are interested in the transplantation and growth of trees.]—Ed.

TRANSPLANTING.

Much has been said on this very important art of altering the locality of a growing tree; but while so many trees are lost, and a still larger number stopped in growth by the operation, the subject cannot be regarded as done with.

All the different parts of this work, come under one general requisite for success—which is, *to take the tree up and set it out again just as it previously stood*, with as little violence to the different parts as practicable.

1. *One of the most obvious points, is to take up the roots as nearly whole or uninjured as may be done.* Instead of cutting off the roots close to the tree, the spade must be set far back from it; and if the tree be of such sort as has tough roots, it should be *slowly drawn* up by the strength of two or three men; but if the roots are tender, the tree must be *lifted* out, earth and all, and the earth removed afterwards by shaking. The roots of a young tree usually extend in a circle equal in breadth to its height.

But as about one-half of the roots must be cut off, even in a careful lifting of a good sized tree, the top must be lightened with the knife in a corresponding proportion. From apple trees, one half of last year's shoots should be cut off, and two-thirds or three quarters from peach trees. If the head is too compact, this proportion of the shoots may be cut entirely out; but if the head is thin, one-half to three-quarters of *each shoot* may be cut. So great is the advantage of thus rendering the top lighter, that no person who has once given it a fair trial, can easily be induced ever to omit it.

2. *A second very essential requisite, is to keep the roots moist while out of the ground.* For this reason it is very useful to plunge them in a bed of soft mud, made on purpose, which coats over the roots and preserves the moisture for a long time on their surface, until they can be again set in earth, or packed in wet moss for sending long distances. Trees received from a nursery should always be *immediately* buried at the roots in mellow soil, so that one by one can be taken out fresh and moist as wanted.

Careless operators often take up trees and suffer them to remain more or less dried for whole days together; all the smaller fibres are thus killed, and the erroneous notion has hence arisen, that the smaller fibres are of no value.

3. *A third requisite is to replace the earth compactly among the roots, leaving no interstices.* If the earth is hastily and carelessly thrown in, vacancies will be left beneath the tree, which will cause great injury, if not death. To do the work well, the earth must be fine, and gradually sifted in from the shovel, spreading out all the roots with the fingers as the work proceeds. Dashing in a few quarts of water before the hole is filled, settles the earth well against all the roots, the surrounding earth soon absorbing the superabundant moisture, and leaving the tree firm. This close contact of soil, it will be observed is assisted by the mudding of the roots, already described.

There are several other points of minor importance, or occasionally very necessary, as paring off all bruised parts of the roots before re-setting; staking up the stem or throwing a bank of earth up around it, to prevent shaking about by the wind; avoiding a water soaked soil; planting no deeper than the tree stood before,—or even placing the tree on the surface, and embanking upon it, if the soil be wet; and keeping the stem and branches moist, but not watering the roots, if the tree is too much dried, till the leaves appear.

The subsequent success and vigorous growth of the tree, depend on *three requisites.* 1. First and most important, is a fertile soil. This may be secured for the tree while young by digging large holes, and filling them (except in immediate contact with the roots) with very rich soil, or with short manure well mixed with soil. Young apple trees, as large as a riding stick, with holes seven feet in diameter thus filled, have borne a bushel of fruit each the *fifth summer.* By the time the roots have run between these holes, the rest of the ground may have been enriched and deepened by manuring and plowing, 2. A second requisite, scarcely less essential, and indeed often more so with peach and some other trees, is to keep the soil mellow and clean at all times of the season. Even a crop of potatoes or ruta bagas lessen the growth of the trees, although *immeasurably* less so than sown crops or grass. 3. A third requisite is *mulching* during dry seasons. This consists merely in covering the ground 6 inches thick with litter, leaves, or similar substances, for several feet each way round the tree, during the hot and dry part of the year. It obviates watering, and assists to an almost incredible degree, the growth of the tree.

Street Shade Trees.

We would briefly remind those who can feel the difference between bare lines of buildings, and dry, glaring, and dusty streets, on the one hand,—and the softness, luxuriance, the interminable beauty of masses of green foliage, and the refreshing shade of our finest forest trees planted in villages and by roadsides, on the other,—we would remind these that the time has now come for action—no delay must be made, if another whole year is too valuable to be lost.

Most of the directions, given in the preceding article on transplanting fruit trees, are equally applicable to shade tree. But there is one all essential part of the work, without which failure is about as certain as the course of water down hill, and that is, the trees after being set out must be carefully protected from the rubbing of street animals. We have seen trees five inches through, which had been moved with nearly a ton of earth on the roots, all destroyed the second year by the rubbing of pigs and cattle. The best, most substantial, and most durable protection, consists of three posts in the form of an equilateral triangle, enclosing the tree, with horizontal cross pieces, or boards securely nailed to the posts. This frame will besides prevent those, who think a tree is a very handy object to hitch a horse to, from spoiling it by allowing the horse to gnaw the bark. "You will be exceedingly vexed," says a late writer, in allusion to such a disaster, "but will be *consoled* by the assurance that the owner never knew his horse to do so before—and you will wish him and his horse at —— the end of their journey!"

A few brief directions for planting shade trees, may be summed up as follows:

1. Dig the hole befor the tree is taken up, for being large, its roots cannot be so easily protected from drying as a smaller tree, and it should therefore be out of the ground as short a period as possible.

2. If the trees are two to three inches in diameter, the holes must not be less than six feet in diameter, and a foot and a-half deep, and the roots of the tree taken up, of nearly corresponding size.

3. Cut round the tree two and a-half or three feet from the stem, and lift it out without tearing the roots or bruising the stem—not after the recommendation published some years ago, as a *very careful* mode of removing, "cutting the roots with an axe, and dragging the trees out with a yoke of oxen."

4. Cut off or thin out one-half or three-fourths of the top, having an eye to the future shape of the tree. This lessens the number of leaves, the draught is less severe on the roots, the fewer shoots grow more rapidly and the wind has less power on the tree.

5. Plant the tree no deeper than before; as some one quaintly remarks, "nature has attended to the growing of trees some six thousand years, and can not in this particular be improved upon."

6. As soon as the tree is set, then immediately erect the tripod-protection, already described.

7. Cover the ground several inches deep with litter, in a circle six feet in diameter. The soil can not be easily cultivated, and this mulching is the best substitute.

Trees treated accordingly to these rules, will begin to grow immediately, and will form handsome, rich, dense masses of foliage, in less time than those which are carelessly torn from the earth and hastily planted like a fence post, can recover from the violence which they have received. It is better to plant ten trees well, than twenty or thirty badly.

Trees which have grown in the open ground are hardier and far better than those taken from the forest. Thick woods afford almost the protection of a green house; and trees removed from them and set out in open air often perish solely in consequence of their tenderness. Those from borders of swamps are often better than those from upland, the soft mucky soil more perfectly admitting the entire removal of the roots. The dissimilarity of soil where they are placed, rarely proves of any detriment. As a general rule, such trees have succeeded much the best with us. This is also, particularly the case with *evergreens,* which always need a large cake of earth to be removed entire upon the roots. This cake should always be large enough to hold the tree stiff against the wind without any staking. When this has been done, we have never lost a single evergreen tree by transplanting. In the borders of swamps, where the muck is shallow on a hard-pan, the roots of evergreen trees usually form a thick mat of roots, all near the surface; cutting round one with a spade, allows the tree to be taken up with great ease, the whole mass of the roots and muck peeling readily off from the hard-pan.

DOMESTIC RECEIPTS.

To Cure a Burn.—A quakeress preacher in New York, was so successful in curing burns, that many of the lower class supposed her possessed of the power of working miracles. The following is the receipt for the medicine:—Take one ounce of beeswax, with four ounces of Burgundy pitch, simmered together in an earthen vessel, in as much sweet oil as will soften them into the consistency of salve when cool. Stir the liquid when taken from the fire till quite cool. Keep it from the air in a tight box or jar. When used spread it thinly on a cloth, and apply it to the part injured. Open the burn with a needle to let out the water till it heals.

Wash for Sunburn.—Take two drachms of borax, one drachm of Roman alum, one drachm of camphor, half an ounce of sugar-candy, and a pound of ox-gall. Mix, and stir well for ten minutes or so, and repeat this stirring three or four times a day for a fornight, till it appears clear and transparent. Strain through blotting paper, and bottle up for use.