

Distillation and Culture of Peppermint.

The mint for this purpose differs from spear mint. The peppermint has a larger stock and a larger leaf, and in rich ground it will grow from two to two and a half feet high.

The principal expense in its cultivation is in procuring the roots for the first year's crop, and the chief labor is in the first year's cultivation. The ground should be rich, and should be carefully ploughed in the fall or spring, so as to be entirely free from grass and weeds.

It is cultivated from the roots planted in spring, in drills from eighteen inches to two feet apart, and should be cultivated carefully with the hoe until after midsummer, at which time it sends forth runners like the strawberry, and covers the entire space planted, sending forth innumerable branches and stocks. It is cut in the fall and distilled into oil. The roots remaining in the ground during the winter, vegetate in the spring, and, covering the entire space planted, require no cultivation the second year, and so also of the third year.—By the end of the third year the ground becomes so exhausted, and so infested with grass and weeds that it becomes necessary to plough up the roots and plant fresh grounds. The crop is exhausting to the land. If the seasons are favorable, and the lands rich, the crop the first year will yield mint that will produce from ten to thirty pounds to the acre. The second year from twenty five to forty pounds, and the third year from ten to thirty pounds per acre. The process of distilling the mint into oil is simply by placing it in an ordinary still boiler with water, and fire below. The evaporation is condensed in a retort, and the oil being of less specific gravity than water, floats on the surface. The water in the retort is permitted to escape by a tube beneath the surface of the water in the retort, on which the oil floats. The process of purifying it from all extraneous matter, is to filtrate the oil through clear white paper.

The Late Disaster on Lake Michigan.

There is no longer room for doubt that the loss of the *Phoenix* together with the lives of more than 350 human beings was caused by the most culpable and flagrant neglect of the Second Engineer.—The fireman, after the boat had been out about an hour or two, if we may credit the statements of the Clerk to the Editor of the *Milwaukee Sentinel*, discovered the pumps did not work, and immediately reported the fact to the second Engineer, who was at the time, in charge of the engine. He did not seem to pay much attention to it and refused to call up the First Engineer. Soon after the fireman again went to the Second Engineer telling him that the pumps did not work, and the water in the boilers was very low. Before any steps had been taken to remedy the difficulty, and about 4 A.M. it was discovered that the boilers, having become red hot on top, had communicated fire to the boat. The firemen in the hold immediately took active steps to stop the fire but the progress of the flames was so rapid that they were soon driven out of the hold. The alarm had now become general—the passengers were all aroused, lines formed on deck, and water passed up in buckets, and poured upon the flames but it soon became apparent that all attempts to check the conflagration were utterly unavailing, and both passengers and crew began to think of only of how they would save their lives.

If the above is true, we hope it will be a warning to all engineers not to be above advice. The best are liable to err, but the wise with a confidence in themselves should never despise the opinions of others.

A Hint.

We are in the possession of the city of Mexico—of the oldest and best established mint in the Republic. We therefore suggest that dies of the United States coin be immediately sent out, and a coinage of dollars be commenced, similar to those of the United States with the sole difference of the word Mexico, at the base of the figure of Liberty. Let our brave soldiers be paid with this coin, which will find its way into Europe and the United States, and whatever may be the result of the war, it will be preserved in every cabinet of coins as a memorial of the conquest.

Declaration of Principles, of the Reformed Association of Inventors.

The following is the declaration of principles by Clinton Roosevelt of this city, for his Inventor's Association.

We declare this truth as incontrovertible.—That the great distinguishing characteristic of civilized society, consists in the arts and sciences revealed by genius. We hold, therefore that laws made or administered by statesmen or politicians which tend to discourage the efforts of genius, tend to depress in an equal degree, the power, intelligence, virtue and refinement of any country where the counsels of politicians jealous of Inventors' rights prevail.

2. We hold by the common consent of the world, that it is labor mental and manual, and time spent, which give value to all things which mankind appropriate. We conclude, therefore, and hold that the inventor who bestows his time and labor of mind and body or capital (which is accumulated labor) has the same right to the unconditional enjoyment and disposal of the fruits of his labor, as any landlord has to his property.

3. We declare that if the Inventor is to be dispossessed, by laws made by the majority, not Inventors, for their own benefit, the majority is bound by the equal principles of justice to make free to Inventors the property of landlords who may have had possession thereof for a sufficient time to remunerate themselves by the rents or occupations of the same, for the labor and expense of improving.

4. We admit that the greatest good of the greatest number for the longest time should be the object of legislation, but we repudiate the idea that injustice, or unequal laws, can, in the end, be to the greatest good of the greatest number.

5. We allow that when the public good requires that any invention should be made common property, no inventor should, and no true patriot will, stand in the way of the progress of arts and sciences more than a land-lord may when required to allow a railroad to pass through his premises; but as the constitution forbids that private property should be taken "for public use without just compensation," so should it forbid patent property from being taken for public use without an equivalent.

6. The fact that the constitution has declared that patents should be granted to Inventors for "limited periods," can not destroy any natural right. We hold, therefore that the claim for compensation exists in its full force at the termination of fourteen years for private patent property, though made public by the constitution at the termination of that "limited period," just as much as if it were any other species of property.

7. The idea that the public have the right of "eminent domain" in the undiscovered regions of genius, is true only when the public appropriate the wealth necessary to make conquests therein, and prepay the Inventor or discoverer for the time and labor he may devote, as well as for unsuccessful as successful experiments, since even failures by proving what may not be done, tend to render more certain what may be accomplished, and is the only condition on which inventors can possibly make valuable discoveries, even in their own behalf.

8. Inventors' patent rights being of the same nature as authors' copy right, Inventors have by nature the same right as to secure patents as authors have to secure copy rights without let or hindrance by any, and at no more expense than may be necessary to record the specification and claim, in a proper public office.

9. As the laws of God are based on principles which extend through all time unchanged by any subterfuges of momentary expediency, therefore we hold those statesmen and Inventors to be most noble, who ask nothing but what is right and submit to nothing wrong, in hope of any present advantages, from injustice, ignorance, or indolence in power.

10. Inventors have the same right to associate for mutual protection, that any other class of citizens enjoy, and as it is a law of

Providence that what men do not value sufficiently to labor to gain, or guard when gained, that shall they not possess, it is incumbent on every inventor to unite with his class, to concentrate a point, the power of all to enlighten public sentiment and awaken in the National Legislature, the disposition to enact equal laws by which the fruits of inventors' labors may be secured to the owners on the foregoing principles.

Timber and Wood Lands.

The following observations of the *Newburyport Herald*, should be carefully studied by all our readers, as there is much truth and force of reasoning contained in them.

Sufficient attention is not paid to the preservation of the forests of the United States, and it is highly probable that the next generation will suddenly find timber very scarce and high. The waste of timber is very great in all the wooded regions, and the demand promises before many years to exceed the supply. In England for centuries past, some of the largest fortunes have been derived from timber plantation, and the surest fortune which a man could leave to his children, has been by preparing an extensive timber plantation, which, though returning him nothing during his life, has been in many instances a mine of wealth to his children. Many of the distinguished nobility of that country have practised that system for many successive generations. And to great advantage we believe many of our citizens could in no way more surely leave a valuable inheritance to their children, than by purchasing some of the cheap lands in the country, accessible to railways and rivers, and making thereon a plantation of timber trees which would be attended with but trifling expense.

The waste of pine in the forests of Maine, the scarcity and high price of hard wood timber in many parts of the country is well known. In other parts of the country less bountifully supplied, the destruction is also going on. Great Britain is cutting off all the forests in Canada and New Brunswick; most of our Western States are thinly wooded, and even Western New York now depends upon Canada for a supply of building lumber. In the peninsula of Michigan, the best pine region in the whole West, the *Buffalo papers* inform us that the waste is almost incredible.

A dozen or more saw-mills are there erected in the midst of the government lands, and are there unmolested using up the government timber astonishingly fast. They saw nothing but the best logs, leaving all others which may be felled out to rot on the ground and they work night and day in order to make as much as possible before any demand is made upon them by the government for the stumpage. In addition to all other uses, the demand for fuel for the steamers of the West, is making sad havoc with the forests along the rivers. A careful calculation of a skillful engineer has made this demand equal to 10,220,000 cords per annum.

New Mode of Scouring Blankets, &c.

We heard of a singular mode of scouring blankets, carpets, &c., while in the country a short time ago. Some dozen persons, more or less of both sexes, meet at a neighbor's house, and having arranged certain preliminaries, seat themselves on the floor with their stockings opposite each other. The articles to be scoured, after being well saturated with soap suds, are then placed between their feet, and the fulling operation then commences by kicking and pulling at a terrible rate, until the parties are satisfied.—*Germantown Gazette*.

We had supposed that modern ingenuity had spread universally over this little of the greatest of countries, and were as surprised to hear of the above custom as was our friend, the editor of the *Gazette*. This kind of Fulling Mill, however, is an old one. It is the way in which the Celts of Ireland, Wales, Scotland and Spain fulfilled their cloth in days of yore, and it is still practised among some of the oriental tribes.

Volcanoes.

A fact of great interest, says Prof. Silliman has been proved by the borings for artesian wells in the suburbs of Paris, namely, that as

we go towards the centre of the earth, the temperature increases at the rate of about one degree for every fifty feet. That the whole interior portion of the earth, or at least a great part of it, is an igneous portion of melted rock, agitated by violent winds, though I dare not affirm it, is still rendered highly probable by the phenomena of volcanoes. The facts connected with their eruptions have been ascertained and placed beyond dispute. How then are they to be accounted for? The theory prevalent some years since, that they are caused by the combustion of immense coal-beds, is perfectly puerile, and is entirely abandoned. All the coal in the world would never afford fuel enough for a single capital exhibition of Vesuvius. We must look higher than this; and I have little doubt that the whole rests on the action of electric and galvanic principles, which are constantly in the earth. We know that when certain metals are brought together, powerful electric action is evolved, and a light is produced, superior even in effulgence to the splendor of the sun. Now if a small arrangement produces such results, what may we not expect from the combinations of these immense beds of metal to be found in the earth? Here we have the key to all the grand phenomena of volcanic action. An illustration on a small scale may be seen in an instrument called the thermoelectric battery, made of zinc, bismuth, and antimony, packed in a box and varnished.—In this heat is evolved below, while the top is cold; and here we have the very case of the volcano, while in the interior a fiery ocean is heaving its surges, while its peak is capped with everlasting snows.

Boiling Heat.

It has been generally supposed that 212° of Fahrenheit was the uniform boiling heat. Recent investigations prove the incorrectness of this supposition. Experiments lately made by Monsieur Douni, a Belgian philosopher, prove that water, when totally deprived of air, does not boil before it has been raised to 260°. It may boil at any point between 212° and 260°, according to the amount of air of which it has been deprived. These experiments, taken in connection with phenomena observed at the Geysers, in Iceland, are attracting the attention of scientific men in Europe.—*Ex.*

Whoever penned the above was surely not aware that water boils in a vacuum far below 212°, and on the top of the Andes Humboldt found that water boiled at such a low degree of temperature, that it could not cook beef.—So the great traveller had to roast it. On sugar plantations all the cane juice is now boiled in vacuo at a great saving in comparison with boiling in the open atmosphere. 212 Fahrenheit is only the degree of boiling heat for water at the level of the sea, and thus water boils just according to the pressure of the atmosphere, either at 212, 200 or 150°.—*Ed.*

A Female Farmer.

The second premium for the best cultivated farm, in Litchfield Co. Ct. was awarded the past season to Mrs. Vesta Hawkins, of Watertown. This farm contains 150 acres. It has been under Mrs. H's management for the last ten years. The committee of examination say:—"It is divided the present season into twenty-two acres of meadow, three and a half of corn, six of oats, one and a half of rye, two of buckwheat, a half acre of potatoes seven acres of wood land and the residue of pasture land. The produce of the farm for the present season is estimated as follows: fifty tons, of hay, two hundred bushels of corn, one hundred and thirty-three shocks of oats, and one hundred and fifty bushels of potatoes. The stock kept on it this season consists of 26 head, including six calves raised this season, two horses and 56 sheep. This farm is conveniently laid out in small fields, and fences mostly of rails, all in good repair, and together with the building present a neat and tidy appearance.—*Cultivator*.

At Augusta, Me. a block of eighteen brick stores three and four stories high, are to be erected next spring besides more or less wooden ones. Fifty dwelling houses have been built the present season, and there will probably be more than this erected during next year.