



Agricultural Department.

RENOVATING OLD TREES.

In the spring of last year a Seckle pear tree, which had injudiciously been permitted to bear continuous heavy crops, was found almost lifeless. The advice was given to root it out, but we sawed off the top with the exception of one small limb that seemed to retain a little vitality, covered the wounds with grafting wax, inverted the soil under it and dug in a liberal quantity of manure. Presently the stump put forth new branches—which grew vigorously and were pinched back in good time—and now there is a top as fair and promising as could be wished. Since then a friend has called our attention to a pear tree similarly treated several years ago, and which has since given a number of profitable crops. An experience of like character is thus recorded in the *New York Herald*:

"About forty-five years ago, there was standing in the vicinity of Honesdale, Penn., a pear tree which was so nearly dead that it was about being cut down. The mother of the owner, having a partiality for the fruit of this particular tree, and thinking that it might be suffering from worms at the roots, resolved to attempt its restoration to health. She accordingly caused the earth to be removed from about the tree, uncovering the large roots, upon which was poured a large quantity of lye made from wood ashes. The excavation was filled with the leached ashes, and all the dead limbs were removed, which left the tree a nearly headless trunk. The results in this case were a most remarkable growth of wood, followed by great productiveness, which continued certainly forty years afterward."

Mr. Greeley used to say that a tree is like a cow tied to a stake—you must carry food to it or it will die. Mr. Charles Downing remarked to us during a recent visit that it was quite surprising, to those who had not tried the experiment, what thinning out the top, scraping, and washing with potash, the trunk and larger limbs, and digging up and manuring the soil, at least so far out as the branches extend, would do for even a very old apple tree—seemingly past help. A writer in the *Country Gentleman* offers the following suggestive views on the same subject:

"I was pleased to see your account of 'old trees dying' restored to vigor and productiveness by manuring. This was, of course, where the soil needed it, else there would have been no benefit. I have in many cases (and never one failed) secured the same result by more attention to the top, removing the dead and ailing limbs, and permitting only the more thrifty and healthy to grow. In these old and declining trees there is much sap wasted on the decaying branches, which, upon their removal, is saved and concentrated upon the more healthy and surviving shoots, while new shoots, entirely sound and vigorous, will start out. In all these cases the soil was well drained and of good depth and richness, little or no cultivation or manure being given. The roots seem to have found room and fertility enough to sustain a sufficient growth. But in the great majority of cases the soil of our orchards is not of this character, but apt to be more or less wet, with the surface soil lacking in depth and the rest unfit for successful fruit-growing. This difference in the soil is always to be kept in view in treating orchards, for it is probably as bad to have the ground too rich as not rich enough.—*Correspondence of N. Y. Tribune.*"

HOW TO USE SOOT.

That soot is of great value when judiciously applied to plants, and that it is also a powerful antidote against the ravages of reptile and insect life, there cannot be the slightest doubt, and yet we sometimes see this valuable fertilizing and purifying agent treated as though it were poisonous (which it verily is, owing to its burnt properties, in the hands of those unacquainted with its proper application) to vegetable life, and hence its consignment to some out-of-the-way place. Thinking, therefore, a few remarks upon its use *apropos* just now, the time of seed-sowing, these notes are penned in the hope that they may be of some little use to a few of those of your readers who are uninitiated in the use of soot. In all establishments soot may be had more or less abundantly, and in large places the supply is considerable, and should always find its way to a dry corner in one of the garden sheds, for if left exposed to inclement weather it loses its virtue. When getting in our onions, we used several barrowloads of soot in this way. When the ground has been trodden or rolled and raked level, the soot, which in the meantime has been passed through a quarter or

half-inch sieve, is spread broadcast in sufficient quantity to cover the ground lightly, when the drills are drawn a foot apart and the seed sown in the usual way, and thus the crop is ensured against the ravages of worms. The same applies in the same way to turnips, parsnips, carrots, and all crops liable to the attacks of worms. I have used it for the above crops for several years with satisfactory results. Again, soot comes into use in a double capacity when used in a liquid state, as it drives worms out of the balls of plants growing in tubs or pots, and at the same time acts as a fertilizing agent to the plants. For this purpose we tie up three or four pounds of soot in a piece of coarse cloth, which we dip and squeeze in the water-tub until the water has become thoroughly discolored; smaller quantities can be used for smaller vessels. Then, again, soot can be used with good effect on the peach and nectarine, and other walls, mixed with lime-wash—say eight or nine handfuls of soot and one handful of sulphur to an ordinary-sized four gallon galvanized bucket of lime-wash, and applied with a whitewash brush, and dabbed well into all the crevices of the wall to the detriment of all insect life. A dusting of dry soot immediately over the drainage of pots which are to be plunged in beds of fermenting material will for some time prevent the ingress of worms. In like manner if soot and lime in proportion be dusted over young crops just coming up of the Brassica tribe when damp, they will be saved from the ravages of birds and flies and slugs. Soot will also do good service if a solution of it, and lime in proportion, be applied with the garden-engine to old apple trees infested with lichen. We use it in our orchard, as above described, every year with good effect; trees that were heavily coated with moss six or seven years ago are now comparatively clean. Soot can also be applied with an equal quantity of light mould as a top-dressing to an impoverished lawn with beneficial results. A corner of the lawn left undressed will be the best proof, if any is required, of its fertilizing properties, at least such is the opinion, founded upon practical experience and satisfactory results of—*H. W. Ward, in Gardeners' Chronicle.*

INSECTS ON HOUSE-PLANTS.—The principal insects troubling house-plants are the green fly, the mealy bug, the scale, and the red spider. The most effectual remedy for the green fly is fumigation with tobacco. Some wooded plants—such as heliotropes, salviae, etc.—will not bear fumigation without injury to the leaves; and for these a weak solution of tobacco is quite as effectual. Steep some tobacco in water and sprinkle the plant with the solution, and afterward syringe with clean water. Mealy bug is to be searched for and destroyed. Frequent spongings do much to keep down the pest. Scale is to be treated in the same way. Warm soap-suds are peculiarly distasteful to this creature. A little turpentine diluted with water (one part to sixteen) will destroy the mealy bug. Alcohol, applied with a camel's-hair brush, will kill any insect it touches. Plants treated with these remedies must be syringed with clear water immediately thereafter. White hellebore (to be obtained at the drug store) is infallible. It can be put in water and applied through a watering-pot, or put in two or three thicknesses of gauze and shake the hellebore under and over the plants while they are wet. Red spider, which is seldom found on house-plants, is nourished by a dry, warm atmosphere. It is a very small insect, first appearing on the under side of the leaves; and, though difficult to see, its effects are quickly noticeable by the browned appearance of the leaves. It yields readily to moisture. Water is certain death. Keep the foliage syringed and atmosphere moist, and you will have no red spider. To kill white worms in flower-pots, take common lime, dissolve it, and pour the liquid on the soil. It does not injure the plants at all.—*American Cultivator*

USE LIME LIBERALLY.—Lime is one of the greatest cleansers and purifiers known to poultry men, and they could ill afford to do without it even for a single season, for there is nothing which could take its place and perform its work so successfully. It also possesses the features of being cheap and readily applied, still further enhancing its desirability. What a fine time the lice would have if it was not for the wholesome checks which whitewash imposes upon them. Just see how the bad and unwholesome odors would affect the fowls, causing them to droop and become sickly, if it were not for the purifying and cleansing effects of the lime which is liberally spread, first being air-slaked, over the floors of hen-houses. Look how rough and unfinished the poultry houses and fencing would appear if it was not for a coat or two of good whitewash applied every spring and fall. Aside from its greatly improving the appearance of surroundings, it has a great tendency to increase durability of wood-work, protecting it in a great measure from the action of the weather, thus paying in many ways for the expense and trouble of applying it. No poultry-man can afford to do without lime, in many

ways; and paint, for preserving and beautifying the outside, as well as the inside, will never supersede the use of lime, for it is far more expensive and does not have the same desirable sanitary results.—*Bulletin.*

HORSESHOES.—The question whether horse should or should not be shod is again under discussion. The proposition will crop up at intervals until a rational view of the subject comes to be taken. As a matter of physiological fitness, nothing more indefensible than the use of shoes can be imagined. Not only is the mode of attaching them by nails to the hoof objectionable, but the shoe is the probable, if not the evident, cause of many affections of the foot and leg, which impair the usefulness, and must affect the comfort of the animal. Whether horses could work on our roads, without some protection, is another question. We think it would be found that the natural structure would adapt itself to any ordinary requirement. There is, however, a wide difference of opinion upon this point among authorities on horse management, and the problem is not likely to be finally solved until the experiment has been tried. There can be no doubt as to the additional power of grasping road surfaces, which would be secured to the advantage of the rider or driver, and the relief of the horse, if shoes were not used. Meanwhile, we should like to see the trial made. It should, however, be understood that the experiment must be tried with colts that have not been shod. This is an essential condition of the test.—*London Lancet, of June 28, 1878.*

TURKEYS must have plenty of room; confinement is fatal to profit. On a grass or grain farm they can, when properly cared for, be made to pay. They are very hardy, the bronze breed in particular, when in full dress, but while still "downy" or just sprouting their feathers, they are very tender, requiring extreme care in keeping from dampness, even the dew being almost always fatal at this stage of growth. When full-feathered they can run out in rain storms, and never seem to suffer at all. The first hatching should always be done under a large hen, as to induce the turkey to lay a second clutch of eggs, which she should be left to hatch herself. The best food for young turkeys is bread sopped in milk scalded meal in which finely-chopped onion tops have been mixed, "cottage cheese," sweet milk to drink, bread crumbs, etc., together with a little wheat screenings when they become older and stronger. Buy breeding stock early in the fall if you would secure the best. The bronze seems to give the most universal satisfaction. Two-year-old hens mated to a well grown, early hatched one-year-old gobbler, produce the most satisfactory results.—*N. Y. Tribune.*

WHAT SALARY DOES A FARMER RECEIVE?—He receives the equivalent of a larger salary than ninety-nine out of a hundred of them are willing to admit. They under-estimate their own profits and over-estimate the profits of men living on a salary. There is a great difference among those who live by farming. A great many work the soil because they do not know what else to do, or because they cannot live by anything else. Many of this class hardly deserve to be classed as farmers. They lower the standard of farming as a business. I believe there is no business by which a man can live so well with so much neglect as in agriculture. Still nothing better repays good care and ability. It is rather slow to yield brilliant returns at the outset: so is any business. The farmer's profits are concealed in the rise of lands—in improvements by ditching, clearing, and new buildings, more land, more tools, or better stock. Most farmers have no idea how much it costs them to live. They forget to figure in the pork, poultry, mutton, butter, flour, vegetables, etc. The salary-man lives entirely by his individual efforts. In estimating a salary, we must do so by looking at the privileges enjoyed, the hard work of brain and muscles, and the gain in property and improvements.—*Rural New Yorker.*

DEPTH TO WHICH ROOTS PENETRATE.—Mr. Foote, in Massachusetts, has traced the tap root of a common red clover plant downward to the perpendicular depth of nearly 5 feet. The Hon. J. Stanton Gould followed out the roots of Indian corn to the depth of 7 feet, and states that onions sometimes extend their roots downward to the depth of 3 feet; lucerne, 15 feet. Hon. George Geddes sent to the Museum of the New York State Society a clover plant that had a root 4 feet 2 inches in length. Louis Walkhoff traced the roots of a beet plant downward 4 feet, where they entered a drain pipe. Professor Schubart found the roots of rye, beans, and garden peas to extend about 4 feet downward; of winter wheat, 7 feet in a light subsoil, and 47 days after planting.—*Scientific American.*

TARRED PAPER IN THE CHICKEN-HOUSE.—I have lined my poultry buildings throughout with tarred paper for two years, putting it between every piece of board or timber, and even into nests, and so far have not seen a louse about. I had a hen-house overrun with

lice two years ago, but upon lining it with tarred paper they disappeared and have not been seen since.—*Poultry World.*

DOMESTIC.

HARD SAUCE.—Beat one cupful of sugar and half cupful of butter to a light cream; add the whites of two eggs well beaten, and a tablespoonful of orange, lemon, currant or any other juice, with such seasoning as is agreeable. Beat all together a few minutes. Set on the ice to harden, if needed.

STEAMED APPLE PUDDING.—Sift with one pint of flour one teaspoonful cream tartar, rub in two tablespoonfuls of butter—scant; dissolve half teaspoonful soda in cold milk, and stir into the flour, adding enough more milk to make the dough too soft to roll. Spread one half of the dough with a spoon over the bottom and press it up the sides of a somewhat shallow dish or pan. Pare and slice three or four large fine-flavored tart apples, and spread them over the dough. Cover all with the remaining dough. Berry puddings are excellent made in same way, only stir the berries into the dough. Steam till fruit and dough are done. To be eaten with any sauce that is liked.

WHEAT CAKES.—If our readers would enjoy wheat cakes in perfection, we advise them to follow the rule set down here, which rule has been faithfully tested scores of times by our own household, and always with complete success. In the first place, you must have some of the flour known as "middlings," and which is most easily procured in the country where mills are found. Now, to a quart of flour add one teaspoonful of salt and enough sour milk to make a batter. When ready to bake, add one teaspoonful of soda dissolved in warm water, and if this should thicken the batter too much (as it sometimes does by effervescence), thin it with a little more milk, either sweet or sour. Then bake like griddle cakes, and, if we are not much mistaken, you will find your cakes lighter, tenderer, altogether more satisfactory than any wheat cakes you ever tried. But, we repeat it—you must have sour milk, really sour, and "middlings" instead of fine wheat flour. Old housekeepers all know what young ones may not know—that the best way of greasing a griddle is by means of a strip of salt pork, cut thick and fastened to a stick or fork.—*Christian Intelligencer.*

WASHING.—An easier method of doing the hardest of all household tasks, washing, is always acceptable. So, if this from the *Rural New Yorker* will help any, we shall be glad: Put all the pieces that are to be boiled in soak the night before, using only clear cold water, the coarse ones underneath and the finest on top. Put the boiler on early in the morning, about three-quarters full of water, and shred about two inches of a bar of soap in the water. Meanwhile wring out all the fine clothes and, laying them on the table one by one, rub the soiled parts with soap, and when the water in the boiler comes to a hard boil, put them in, a few at a time. Do not fill the boiler too full, as the water must wash through the clothes to extract the dirt. Let them boil from twenty minutes to half an hour, not more. While these are boiling, you can be preparing the coarser pieces in the same way as the first. Take out the fine pieces into a tub and put in the other clothes, adding water if necessary and a little more soap. You now begin to see the advantage of the new system; for when you begin to rub the clothes, you find that they need very little rubbing, indeed the napkins and tablecloths seldom need any. Rinse the same as usual, and I, for one, will be surprised if you do not own how much less labor your washing has cost than in the days of old.—*Standard.*

APPLE DUMPLINGS.—Put to three cups of flour half a teaspoonful of baking powder; sift them together; cut into the flour half a cup of sweet lard; mix with a knife into a smooth, firm paste with one teaspoonful of cold water. Set on ice or in a very cool place fifteen minutes. While the pastry is getting cold take one and a half cups of butter and extract the buttermilk and salt by pressing it in a clean towel, then flour it. Now take the dough and roll out on a smooth, well-floured board; place the butter on it, and fold the dough over it, so as to cover all the butter. Roll out lightly to a half-inch thickness; turn it over; fold each end to the middle, flour it, roll out again; again turn over, fold each end to the middle, flour, and roll out. Repeat this three times more and use. (If made in summer this paste should be put on ice between each folding and rolling.) Peel and core eight fine-flavored tender apples, and fill the centre when the core is removed with sugar. Roll out the pastry thin, cut it into eight squares of four inches, lay an apple on each square, wet the four corners of the pastry, and bring them together at the top of the apple and fasten by lapping each edge over the other and pressing together. Sift sugar over, lay in a baking sheet, and bake in a hot oven twenty-five minutes. Serve with hard sauce.