



Agricultural Department.

BURNING SOIL FOR MANURE.

Some years ago, a friend of mine tried an experiment. Having a wagon-load of weeds heaped in a lot, he burned it; and afterwards carefully scraped away every particle of the ashes. The oats that grew where the heap was burned were thicker, and at least six inches taller than immediately around it. Next year he had wheat on the field, and over this spot the wheat was stronger and better than anywhere else. Since then he has seen no effect whatever from this burned heap, and the precise spot has long been undistinguishable. As the ashes were all removed, the only effect from the burned heap was by heating the soil to make its dormant elements of fertility immediately available. Nothing was added to the soil, and as two extra heavy crops were taken from this spot, it is, necessarily, less fertile than land surrounding it. This, however, is not in itself an objection. More than half the labor of the farmer in plowing, cultivating and pulverizing the soil in every way is designed to make available the fertility in the land rather than to increase its amount. It would be an immense advantage to all sensible farmers, if they could make all the fertility of their farms immediately available. With such crops as they could grow they could procure all the manure needed to keep up their farms, or if not, then farming is necessarily a bad business, which leads, however slowly, to bankruptcy and the poor-house.

Few farmers, however, would care to go to so expensive a process as burning over all their fields to extract the fertility more quickly. In the early settlement of the country, straw was worth little or nothing, and stubble was always left as long as possible, and generally burned over to get it out of the way the plow. The surface of the soil was by this means slightly heated, and this, with the ashes from the burned stubble, made an excellent and well distributed top-dressing for the following wheat crop. There was plenty of carbonaceous matter in the newly cleared soil from decaying leaves, roots and stumps of trees, and burning over the stubble was probably the best way of disposing of it. The wheat crop in this burned ground was always good, and the straw stiff and bright, showing the effect of potash in the ashes. Straw is now, in Western New-York, far too valuable to be burned, and potash can be procured much more cheaply from other sources.

Undoubtedly one cause of the good crops on heavily timbered lands for a few years after clearing, was the burning of large heaps of logs over the surface. These burning heaps would heat the soil to the depth of several inches, and the burned soil, mixed with ashes rich in potash, seemed inexhaustibly fertile. We long since learned our mistake in this; and yet many farmers would like to repeat the process if they could readily do so. It is well worth trying whether we cannot profitably work up muck and peat from swamps with dry sods from the roadsides by burning them. Muck is largely used in its raw state, but it is too crude and sour unless exposed for a year or two to the summer's heat, and winter's cold outside its native beds; besides, muck is too bulky to warrant long transportation. Much of it may not be rich enough in potash and other mineral elements to be worth burning. In England a marly clay, filled with vegetable matter, is burned, or was forty years ago, quite extensively. The sod is pared to the depth of two or three inches, piled in heaps and burned. The mixed ashes and powdered clay are then applied to the land with excellent effect. Of course the value of the product will depend entirely on what was burned, and this is best tested by trying, which can be cheaply done, at first on a small scale, to see whether it will pay.

Many people unthinkingly suppose that all ashes are alike in value. Nothing could be farther from the truth. Ashes from some kinds of wood are almost valueless, and the same is true of soils. Some years ago a large heap of button-wood limbs was burned in one corner of a neighbor's field. The ashes were left on the ground. The next year the wheat grew so rank and heavy on this spot that every body noticed it. "Yes," said to a neighbor, "you will see when that wheat ripens, that the straw will be bright, and the heads well filled with the best of wheat." I argued from the known tendency of potash to form the silicates which give straw its strength. Judge of my mortification when the wheat fell down before ripening, and the heads never half filled. The button-wood branches evidently furnished no potash, and the soil itself was deficient in that element. Of course such

soil would be worth very little to burn as manure.—*W. G. T. in Country Gentleman.*

MAKING GOOD BUTTER.

At the winter meeting of the Connecticut Board of Agriculture, Mr. F. D. Douglas, of Vermont, read a paper on butter making, arranged under four heads: First, that of the care of the milk until the cream was raised; second, the different modes of raising the cream; third, the churning and treatment of the butter until packed; and, fourth, the different kinds of packages suitable for the keeping and transportation of the product. Under the first head, he showed that no system is good unless it provides pure and rich milk; there must be a selection of the best butter cows. To test accurately the comparative richness of milk, the farmer must have suitable appliances. He here showed what he used for the purpose. It is a tin pail, 13 inches deep, 4 inches in diameter, with a slot in the side to admit a piece of glass 5 inches long and 1 to 1½ inches in width. A scale of inches is marked off along side of the glass. By filling the pail to the 12 inch mark, and measuring the thickness of the cream, an accurate idea of the richness of the various milks can be formed. This plan is not patented. Mr. D. then showed that the character of the food, presence of anything impure, smells of all kinds, excitement in the cows, &c., all affect the product of the milk; no wooden vessels of any kind should be used in manipulating the milk.

For obtaining the cream, it is his practice to set the milk in pails thirteen inches in diameter, and the same depth. He puts in twelve inches of milk. The pails are set in vats of water, that are kept at a temperature of 60° to 65° by the use of ice floating in the water. It is only by uniformity of conditions that uniformity of results can be obtained. Mr. D. did not believe in shallow setting of milk; by this no uniformity at all was obtained. Air is fickle and utterly unreliable; so fluid is the only safe medium. The Orange County plan of setting milk, he says, is about the same as his, except the pails are only 6 inches in diameter. He claims that his plan is better, on account of the larger mass of milk. One great disadvantage in shallow setting, is evaporation, which leaves the butter globules dry, so that in churning they do not separate, but are found in the butter as white specks. These can only be prevented by the deep setting of the milk.

In churning, the grand object of the butter-maker must clearly be kept in view; that is, to get a perfect separation of the butter globules from the milk. The temperature should be about 60°. He uses the hand churn. When the lumps got to be an inch in diameter, he drains off the buttermilk and washes the butter in cold water. This is the best way to get the milk and unseparated globules from the butter. The separation by water must be complete, otherwise the butter will become rancid. Good butter will have a good grain, a golden color, and a pleasant milky flavor. In working, he had lately practised salting and packing at once. Although his neighbors had told him he was in for a loss, his experience satisfied him this was the best and most economical way. As to packing, there should be a choice of wood for firkins; oak discolors butter; the sugar in maple turns it acid; white spruce is good; hemlock also. They should be thoroughly soaked in hot brine before being used. In closing, Mr. Douglas remarked that farmers should study the science of their calling, not only for the sake of increasing their productions, but also for its elevating effects on themselves.

EDGINGS FOR GARDEN BEDS.

Some kind of permanent edgings are needful for all beds or borders not laid out in lawns if one desires to have the garden present a neat and orderly appearance; and growing edgings, composed of some plant suitable for the purpose, are, in our opinion, the most desirable, and if well and neatly kept, they are always more pleasing to the eye than those composed of ornamental artificial material. Yet these artificial edgings are sometimes preferable in small gardens in large towns, where live edgings will not thrive; and often as a matter of necessity in gardens where children play, for it is not easy to keep their feet from trampling upon them and destroying them. In almost all gardens, however, a strip of grass turf is the most appropriate edging, and its width should be in proportion to the size of the beds. If they are three feet in width a strip of turf five inches broad will be suitable. These grassy edgings, however, are often objected to because they require much attention to keep them in good condition. But we have found it not much work to have them clipped closely with a pair of sheep-shears; and any small boy can easily accomplish the task in the early morning, when they are wet with dew. But the best live edging is formed of the Box plant (*Buxus sempervirens*), which makes a fine edging for garden-beds in almost

every locality. It is a dwarf evergreen shrub, growing in a close, compact shape, and only requires to be clipped once a year.

There are two kinds of Box—the Dutch variety, which is the handsomest that can be obtained; and the English Box, a coarser-growing kind, which in two or three years will grow from six to seven inches in height and also to an equal breadth. But it will not endure such close clipping as the Dutch Box.

Edgings of Box should be planted as early as possible in the spring, and if the season is dry they will require to be watered frequently. If they are planted upon a light soil they will spread more rapidly than upon a heavy clay; and in planting them a line should be stretched along the sides of the bed and the plants should be set out from three to four inches apart, if of the Dutch variety, but if of the English five to six inches should be left, to give them room to grow and spread without crowding each other too closely. These plants can be purchased of the florists by the hundred or thousand.

The common succulent Evergreen Stonecrop (*Sedum acre*) is sometimes employed with good effect as an edging plant, and after it is once planted it needs only to be kept from straggling.

Among other plants which are also useful for edgings are the golden Feverfew (*Pyrethrum parthenium aureum*), the Wall Cress (*Arabis Alpina*), and Thrift (*Statice Armeria*), all of which possess pretty flowers and foliage, but are not so desirable, in our opinion, as turf or Box to form a boundary-line. But they will grow readily and every piece or tuft will form a plant, while they increase rapidly from the roots. They should be planted at first in a single row, about four inches apart, and they should be taken up and replanted about every three or four years, while all but the Golden Feverfew will demand no other attention than the pulling up of any of the roots which grow out of bounds and clipping off all of the faded flowers. The Golden Feverfew, however, should not be allowed to bloom at all, as it will grow in a much more compact form, if all its buds are removed as soon as they appear, and it can be clipped at any time during the summer; and this should be done often, to prevent the plants from straggling and to keep their surface more even.

The best way to obtain this edging, which the English florists recommend highly, is to purchase a packet of the seed, which will not cost over ten cents, and as soon as the plants have attained to their third and fourth leaves transplant them into a light soil and in a little shaded location, about six inches apart, keeping them watered in dry weather and free from weeds. By October they will make fine plants, and can then be planted where they can remain permanently. By this method a large quantity of very pretty live edging is readily obtained at a very small cost.—*Mrs. J. O. Johnson in N. Y. Independent.*

HOT WATER FOR CABBAGE WORMS.—We tried, last year, a number of remedies for the cabbage worm, an insect too well known to many persons as a voracious eater of the pulp of the leaf. The sprinkling of red pepper did well; but the best, simplest, cheapest and most efficient was applying hot water. It may be wrongly applied, to the injury or destruction of the plant; and it may be properly applied, doing no injury, and killing the insects. Fill a watering-pot with boiling water, and sprinkle the infested leaves only a second or two. It does its work very quickly on the worms; but the leaves being thick are not heated nor injured. The older the heads become, the less the danger. The operator must practice and spoil a few plants to save the rest. The water, by the time it reaches the plants, will be several degrees below boiling; he must determine by trying how long the hot water will do its work before becoming too cold. At the same time he must ascertain by experiment how long he can contrive to apply the hot water before the leaves are injured by it; a very little time will determine these points.—*Country Gentleman.*

STREET TREES.—G. Ellwanger makes some excellent suggestions in the Rochester Express, on the importance of well planted streets in cities, which he thinks as essential to the beauty of a town as the architecture. We regard tree planting as much more important than fine building, at the same time that it is less understood. Mr. E. mentions Columbia, S. C., as affording one of the best examples of judicious planting, either in this country or in Europe. The streets are about a hundred feet wide; with triple rows of oaks, of grand and perfect growth. When streets are narrow, trees of pyramidal, or upright growth, should be chosen, of which some of the cut-leaved weeping birches are good examples. Wider streets may have maples and horsechestnuts; while the widest of all may be planted with spreading elms. Mr. E. further suggests that some particular tree be planted exclusively in one street, and another sort in another street; which would give a characteristic expression to each street; and he very justly objects to the common prac-

tice of trimming and mutilating trees year after year. If left nearly untouched, their full form will become developed, and for this reason the trees should not be crowded, but have abundance of room.

DOMESTIC.

CARPETS OR CLEANLINESS.

BY MRS. A. F. RAFFENBERGER.

The prudent housewife looks anxiously over her belongings. Particularly carpets. There are thin spots that begin to loom up ominously on her vision. Day by day the chasm yawns larger. She lies awake at night, planning how she will put the frayed breadths under the bed, or back of the stove, or behind the lounge, if, happily, the defects be not too great to admit of such concealment. If so, the carpet is condemned to a smaller floor.

But why all this solicitude about carpets? And why are we so afraid of bare floors? As far as cleanliness is concerned carpets are very reprehensible. Think of the dust they accumulate, of the unsavory odors they take and hold and give out! The air of a room is frequently contaminated by a foul-smelling carpet, and every footstep raises a cloud of vile dust, to be inhaled by the sensitive lungs. The fact is, it is almost impossible to keep a carpet absolutely clean.

But bare floors! ugh! It makes one shiver to think of the thing! Besides they make a room look so unfurnished and poor-folk-y.

All a mistake, I do assure you. The truth is, we do not know half the beauty there is in our common woods, and we have little idea how ornamental, as well as sweet and clean, a bare board floor can be made. You do not want paint to hide the beauty of the wood, but some process that will bring out the grain, and fix it before our eyes in its own wonderful beauty of curve and wave, and concentric circle. Why every separate board thus treated becomes a study in itself! Nature has painted a different picture on each, and the eye never wearies of studying patterns more beautiful than those of Axminster or Pessis.

Let me illustrate by my own experience. We have just moved. Every person who has passed through the trial, knows what worry of cutting and piecing carpets that signifies—to say nothing of new ones. Before moving I made up my mind, not only from pecuniary reasons but from motives of health as well, to dispense with carpets in certain parts of the house. There are three halls. I did not want oilcloth, for it is hard to keep clean, is as cold as a bare floor, and not half as pretty, in my estimation. Carpet of any kind holds too much dust for hall-floors. Then there was the dining-room. Grease-spots on my dining-room carpet had often vexed my soul and brought gray hairs to my head. No more carpet on that floor henceforth for me. I resolved to have the floors before mentioned tiled.

This is the way we did it: We procured from a druggist three quarts of boiled linseed oil, and the same amount of shellac varnish. Also a paint-brush. This quantity of material will cover as much floor as forty yards of carpet, and cost only \$3.60.

The floors were cleaned as thoroughly as possible, and all spots that would not wash off were planed off.

We put on the first coat of the oil in the evening, and the next morning it was dry. The following evening we put on a coat of the shellac varnish, which was dry by morning. Then, after two or three days, we put on the final coat of oil, but as the wood will absorb very little oil this time, we put it on with a flannel and rubbed it in as thoroughly as possible. It was soon dry, and ready for use. Now we have beautiful floors, easily kept clean by wiping off the dust with cold water. Once in three or six months we can go over them with a little of the boiled oil and have them look as well as ever again. In the winter, if we choose we can lay down rugs to take away the "cold" look that some object to.

Such floors would rob "cleaning-time" of half its terrors, and add largely to the purity of the atmosphere of our houses, already poisoned by air-tight stoves and furnaces. It is a cheap reform and easily tried.—*Christian Weekly.*

POLISH FOR FURNITURE.—Equal proportions of turpentine, linseed oil and vinegar, well rubbed in, and then polished with a piece of chamois skin or soft flannel, will "work wonders" with furniture that has become dingy from exposure to dust and old age.

GERMAN BREAD.—When you make light bread, take a small piece of the dough and work in a little sugar, and make a loaf for supper. It is good enough for cake, and much healthier. Children will eat it and call for more.

A GOOD TEA CAKE.—One cup of sugar, half a cup of butter, two eggs, two-thirds of a cup of sweet milk, one even tablespoonful of baking powder, in two cups of flour. Flavor to the taste.