To prevent the Girdling of Trees by Mice in Winter.

We find the following paper among the Memoirs of the Massachusetts Agricultural Society, published in 1810:—

To the Hon. John Lowell, Esq.

Sir,—The very great destruction of fruit trees, occasioned by mice and moles, during the winters of the two or three last years, has made it an object of the utmost importance to discover the best means of preventing the mischief, or to invent a remedy for the evil, after it has taken place. So prodigiously have these pernicious vermin multiplied of late, in some places, as to threaten the destruction not only of fruit trees, but also of forest trees, and the grass of our best mowing fields. During the winter of 1808 and 1809, they were known in some cases to attack a whole copse of small trees, leaving scarcely one ungirdled; and in many mowing fields, to gutter almost the whole surface of the ground, for acres together, with their burrows and paths. Instead of molesting only the small trees in our orchards, as usual, they have of late completely girdled apple trees, in some instances, of nearly three feet in circumference, and destroyed them.

As this mischief is seldom done but in the severity of winter, when these vermin are driven to the roots of the trees for shelter, and are deprived of their ordinary subsistence by the frost and snow, the most effectual way to prevent their injury is, in the month of November, just before the winter sets in, to clear away all the rubbish and furze from around the roots of young trees, leaving the ground bare, and then to put a coat of dry ashes all around. The roots of the tree then affording them no shelter above ground, and they having a natural aversion to burrowing in ashes, they will be driven for shelter to some other place, and your trees will thereby, in a great measure, be preserved from their mischief. The ashes also will abundantly compensate you for the trouble and expense, causing your trees the year following to thrive and flourish exceedingly.

Another method of some use is, in the early part of winter, after the first snow, to shovel snow around the roots of the trees, and then tread it down hard, by which it will freeze, and become solid like ice, through which they cannot penetrate. But this method is by no means sure, as they will frequently burrow under the ice, and sometimes injure the roots underneath, and in the least thaw pass up and injure the tree.

But after the injury has been done, and your tree has been completely girdled, and all the bark eaten off round the tree to the hard-wood, I know of but one remedy to preserve the tree alive, although many experiments have been tried. A tree girdled in this manner, having no means of conveying the sap and nourishment from the roots up into the body and branches above, must wither and die. The usual way is, among farmers in such cases, to dig up the trees and set out new ones. Sometimes they are cut off and headed down below the place eaten, and new wood in length of time, will shoot out and make a second tree.

But it occurred to me that if any artificial way could be discovered to renew or make a communication of the circulating vessels of the lower sections of the bark and sap eaten off, with the upper, so as to convey up the juices and nourishment from the roots into the branches, the tree might be made to live and flourish.

Accordingly choosing a fine thrifty tree about twelve inches in circumference, as soon as the snow was off the ground in the spring, which had been completely girdled by the mice, and all the bark eaten off all round to the hard-wood, more than four inches wide, like a belt; I took a sharp knife and evened the edges of the lower and upper circle of the bark eaten off; then took a scion from the tree, about the bigness of a pipe stem, and an inch longer at each end than the space where the bark had been eaten off around the tree, split the scion lengthwise, and shaved the split side down, so as to fit to the body of the tree, being very careful not to disturb the bark of the scion; then cutting away the lower circle until it came to fresh bark, made a perpendicular slit one inch down towards the root of the tree, then crossed this at the bottom with a horizontal slit, half an inch on each side, as in budding; then gently peeled up the bark on each side, and fitted the lower end of the scion in, squeezed the bark down around it; then fitted the upper end of the scion into the upper circle of the bark eaten off, in all respects as I had done the lower. In this manner I placed six scions all round the body of the tree; then covered it over an inch or more thick with Forsaith's composition, and hoed the dirt all round the roots of the tree to keep it moist.

The tree did not put out its leaves so soon nor so vigorously at first, as the other trees; but by the middle of summer it flourished very well, and in the fall there was no apparent difference between it and the surrounding trees. It bore some fruit the last year, and is now covered with young fruit and appears as healthy and flourishing as any tree in the garden.

In the fall of the year after this operation, I opened the roots of this tree, and tore away the plaster, and to my surprise, I found that four of the six scions had taken, and grown to the size of nearly an inch in diameter.—The other two did not take, by which means the tree is a little flat on one side. I lately opened the tree again, and have found that it will soon be covered with bark again, except the side where the scions did not take.

This experiment I have known to have been tried several times since with equal success. Mr. Isaac Davis, of Coxbury, a very intelligent and respectable farmer, in the spring of the year 1809, treated in the same manner a large apple-tree, of more than twenty-seven inches in circumference, which had been eaten off all round for a space of more than four inches. The tree flourished, and bore fruit the last year, and is now covered with a great abundance of fruit; and is extremely thrifty, having recently examined it for the purpose of ascertaining its present state. Mr. Davis made use of common clay mortar in his experiment, instead of Forsaith's composition, which he thinks answer as good a purpose.

Knowing, sir, the interest you feel in every thing that tends to improvement in agriculture and husbandry, I have taken the liberty to address to you the foregoing experiments and observations, which, if in your opinion, should be deemed of public utility, you are requested to communicate in any manner you think most useful to society.

I am, with the highest respect,
Your most obd't. and humble ser'vt.
LUTHER RICHARDSON.

Roxbury, Mass., June 10, 1810.

Lime for Trees.—In planting and transplanting trees, the English put a small quantity of lime in the hole, mixed and incorporated with the mould. The effect is to give the trees a vigorous and healthy start.

To drive away rats.

Tar, or birdlime, laid in their haunts, will stick to their fur, and cause their departure. If a living rat be caught, and well rubbed or brushed over with tar and train oil, and afterwards put to escape in the holes of others, they will disappear.

Management of Pork.

In Europe, the Russian pork bears a high price; and its quality is supposed to be owing to the pickle in which it is preserved. This is called the "Empress of Russia's Brine," and is prepared as follows: boil together over a gentle fire six pounds of common salt, (that in most common use in Russia is rock salt), two pounds of powdered loaf sugar, three ounces of salt-petre, and three gallons of spring or pure water. Skim it while boiling, and when quite cold, pour it over the meat, every part of which must be covered with the brine. Small pork will be sufficiently cured in four or five days; hams intended for drying, in two weeks, unless they are very large. This pickle may be used again and again, if it be fresh boiled up with a small addition to the ingredients.—Before putting the meat into the brine, wash it in water, press out the blood, and wipe it clean.

Pickling tubs should be larger at the bottom than at top, by which means when well packed, the pork will retain its place until the last layer is exhausted. When the pork is cool, it may be cut up, the hams and shoulders for bacon, and the remainder salted. Cover the bottom of the tub or barrel with rock salt, and on it place a layer of meat, and so on till the tub is filled. Use the salt liberally, and fill the barrel with strong brine, boiled and skimmed, and then cooled. The following method of preparing hams and shoulders is a good one; as many who have tried it in substance can testify:

To ascertain the probable weight of the meat to be prepared, weigh a number of the hams and shoulders. Then pack them with rock salt in a suitable tub or cask, being careful not to lay the flat sides in the large pieces upon each other, and filling the intervals with hocks, jowls, &c. To every 300lbs. of meat, then take 20 lbs. of rock salt, or Onondaga coarse salt, 1 lb. of salt-petre, and 14 lbs. of brown sugar, or half a gallon of good molasses, and as much water, (pure spring water is the best), as will cover the meat; put the whole in a clean vessel, boil and skim; then set it aside to cool, and pour it on the meat till the whole is covered some three or four inches. Hams weighing from 12 to 15 lbs. must lie in the pickle about five weeks; from 15 to 25 lbs. six weeks; from 25 to 45 lbs. seven weeks. On taking them out, soak them in cold water two or three hours to remove the surface salt; then wipe and dry them. It is a good plan in cutting up to take off the feet and hocks with a saw instead of an axe, as it leaves a smooth surface, and no fractures for the lodgment of the fly. Some make only six pieces of a trimmed hog for salting; but it is more convenient when intended for domestic use, to have the side pork, as it is called, cut in small pieces.

The goodness of hams and shoulders and their preservation, depends greatly on their smoking as well as salting. Owing to some misconstruction of the smoke-house, to the surface of the meat not being properly freed from the saline matter, or other causes, it not unfrequently happens that during the process of smoking, the meat is constantly moist, and imbibes a pyroligneous acid taste and smell, destructive of its good qualities. The requisites of a smoke-house are, that it should be perfectly dry; not warmed by the fire that makes the smoke; so far from the fire that any vapour thrown off in the smoke may be condensed before reaching the meat; so close as to exclude all flies, mice, &c., and yet capable of ventilation and escape of smoke. The Westphalian hams are the most celebrated in Europe, principally cured at, and exported from Hamburgh. The smoking of these is performed in extensive chambers in the upper stories of high buildings, some of four or five stories; and the