

## FIRES FROM ASHES.

The records of our Fire Insurance offices show that the most common cause of fires is the use, or rather the abuse of stoves, and the next in frequency is, the deposit of ashes in wooden vessels, or other unsafe places. Strange as it may seem, not one-half of the dwelling-houses in this country are provided with safe places of deposit for the ashes daily accumulating from our wood fires, and, in a majority of them, a barrel or box performs the office that devolve on an ash-house of brick or stone. This wooden depository is not unfrequently placed in the wood-house, or some other of the out-buildings, ready at any time to ignite, or it is disturbed by winds, to furnish the spark that will kindle a destructive conflagration. It is generally considered the extreme of prudence, if the ashes, when taken from the hearth and glowing with red embers or coals, are placed in holes dug in the centre of the surface of the cold ashes, and slightly covered with them, and not allowed to come in actual contact with the sides of the box or barrel. To us it seems most strange, that under such circumstances, fires from ashes do not more frequently occur, and the great danger of such a disposition of ashes would prevent its recurrence were the evil fully understood.

Almost every family that is unprovided with an ash-house of brick or stone, and that is in habit of using a wood substitute, must have met with cases in which, in spite of all their care in depositing ashes, serious danger from fire has arisen, the boxes have been burned, charred, or destroyed, greatly to the wonder of the parties interested. Houses are burned, and the misfortune is placed to the account of the incendiary, when it should be placed to the account of the ash-box. There are some facts connected with this subject that should be more generally known, as they might have the effect of placing house-keepers and house-builders more on their guard.

Not long since, a friend of ours on taking possession of a place which had been unoccupied for several weeks, when he came to take up the first ashes made from his fires, found that his predecessor had used an old hog-head, and on examination this was found about half full of ashes, covered so as to exclude the rain. A hole was made in the centre of these old ashes and the new ones deposited. The next day there was an alarm of fire, and the hog-head was found in flames. Fortunately, the fire occurred in the day time, or his buildings, valuable as they were, would most certainly have been destroyed. This occurrence is not an unusual one, and the frequency of losses from this source, induced Prof. H., of Vt., to enter upon a series of experiments to ascertain the cause. From instances that had fallen under his notice, he was induced to believe, that when embers or live coals are placed among dry ashes, no matter what may be their age, or how long they have been deprived of fire, a second ignition takes place, which sometimes does not cease until the whole mass has been burned over, although it is frequently arrested before it has reached this extent. Boxes filled with cold ashes, had a quantity of red hot embers and live coals from the hearth placed in their centre, and then carefully covered and closed. It was found that the heat gradually increased, the fire extended through the whole mass, the box became charred on the inside, and when air was admitted combustion ensued at once. The same result took place when the box was burned through to the outside. In order to determine whether the combustion of the ashes took place in consequence of the coals which are usually left in ashes, boxes filled with sifted ashes were tried in the same way, and

ignition took place as before; proving either that a sufficient quantity of fine particles of coal remained to support combustion, or that a sufficient amount of nitrous matter was obtained from the atmosphere to allow ignition to take place. In either supposition, the manner in which numerous fires annually take place seemed clearly established, and the danger of placing ashes in wood vessels of any kind clearly shown. Nothing but absolute necessity should allow the practice of having barrels or ashes about our dwellings or out-houses. A safe ash-house is as indispensable as a kitchen, and no house should be built where this receptacle is not provided.

To the farmer, ashes are of great value, and to waste them or sell them, as many do, is the worst kind of prodigality. Leached or un-leached, they are one of the best promoters of fertilization, and should be saved with great care; but never at such frightful risks as the destruction of the farm buildings. Of this there is not the least necessity; the cause of the danger once understood it can be readily guarded against, and if insurance companies would look to this matter in their policies, the evil might be arrested without delay.—*Albany Cultivator.*

## GARDENERS' DEPARTMENT.

*From the New York Farmer and Mechanic.*

## CULTIVATION OF APPLE TREES.

The cultivation of Apple and Pear Trees, whether the fruit be used as marketable produce or converted into food for stock is a subject of much interest and importance to the farmer and the gardener. When the prices for the fruit are sufficiently high to remunerate the grower it will be always best for him to dispose of his produce in that shape, but on the contrary, should the prices be such as to preclude the grower from obtaining a fair profit, we think he would find it to his advantage, rather than submit to such a sacrifice, to convert his apples and pears into domestic preparations—and thus place them, perhaps in a more marketable, but certainly in a less destructive form. The cultivation of the apple and pear, for these latter purposes has long been, and continues to be, a source of great profit, to farmers in the southern counties of England, and reference to the system as pursued there, may not be unattended with benefit, we think, to our own cultivators.

It is not unusual in Herefordshire, Devonshire, and Somersetshire, which may be termed cider counties, to pass in the course of a day's ride, many orchards, twenty, and thirty acres in extent. The soils best suited to the growth of the apple, and pear is found to be a mixture of clay and loam, and of such admixture the counties enumerated are found mostly to consist. We believe invariably the best plantations of trees bearing a sufficient quantity of fruit, of the richest, and most productive quality, are found in these loamy clay soils. Such a soil then in a sheltered situation, protected especially from the easterly winds is the most to be sought for, and it may be added that a very moderate degree of moisture will be found sufficient, as such trees seem to delight in dry stations, and the fruit is much more saccharine and rich, though it may not be so abundant, nor so juicy. The stocks bearing the grafts being ready for transplanting and setting out. Furrows should be drawn in the field, intended to be planted at a distance of about twenty feet from each other. The trees may then be planted in this furrow, also at the distance of twenty feet from each other. Thus by this arrangement, they will be formed into a square plantation. The proper season for setting them out is thought to be the month of October.

The holes in which the trees are planted, should be in proportion to the size and shape of the roots, so as to give them room to shoot freely in a loose earth; in such a soil as we have specified, from eight to ten inches will be found sufficiently deep.

As the holes are made, the top and bottom earth, should be carefully separated; when the Trees are to be planted, the end of every root, so far as it has been wounded in taking up, should be cut off. The best or surface earth, should then be put in the bottom of the hole, the tree then placed exactly in the centre, and held there by an assistant, care being taken that each root is laid in its proper place, so that there may not be any interference, one with the other. Then, having previously prepared a sufficient quantity of compost, made of rich earth, lime, well fermented manure, &c. well mixed together; about four inches depth of this dressing should be put on the roots, and the hole then filled up with the remainder of the natural earth; this done, two stakes should be driven into the ground, one each side of the tree about ten inches from the tree, so that all three may be in a line; a straw rope should then be placed round one of the stakes and twisted towards the tree, taking in the tree in the twist, and then proceeded within in a similar manner to the other stake, where it should be made fast. This cross-bar of straw will effectually prevent the young trees being disturbed by the wind, and at the same time, do no injury to its bark; furze-bushes, or other substances being placed round the body of the tree, to protect it from injury by cattle the operation of planting, may be said to be completed.

Apple trees should be dressed every three or four years; nothing being more desirable than to keep the roots from having to encounter a hard surface, which they must do in searching for nourishment, unless led from the surface—where the Orchard is laid down with grass, we have known great advantage to arise from allowing sheep to feed it as they will contribute to its fertilization by this natural manner.

The most profitable plan to pursue, however, is to keep the Orchard under tillage; where this plan is pursued, the apple-trees are observed to thrive in an extraordinary degree. This practice we have pursued in the County of Kent, in England, and with great advantage to the farmer, but perhaps under such circumstances, thirty feet will be near enough to plant the trees to each other. In such an interval of ground, there is plenty of room to work the plough. But ground under such culture as we are now suggesting, requires as must be evident to all, a plentiful supply of good manure and lime.

As the trees advance to their maturity, it is always indicative of good management to see their heads kept in good order, so that one shoot or branch does not interfere with another; and also to cause them to spread as widely as possible, since they are in that state, much less exposed to the mischief of boisterous and tempestuous winds in destroying the young fruit, or which is nearly ripe, especially, when the tree is plentifully laden with apples. A full grown apple-tree should have its lowest branches spread at four feet and a half from the ground, and all the rest diffused in regular distance, and form from each other, as nearly horizontal as possible, so that the topmost shoots may not be above twenty feet high; such a form and regularity may be attained by an early and judicious use of the pruning knife.

Upright shoots from the middle are always prejudicial, and the more open the centre of the tree is kept when young, the better founded is the hope of its being highly productive in its maturity.