FARM AND FIELD.

NUT-BEARING TREES.

The value of every farm may be increased and the pleasure of its occupants enlarged by a good collection of nut-bearing trees. In nearly every portion of the north-west the black walnut, the white walnut, or butternut, the common and shell-back hickory, and the pecan are hardy and productive. In many sections the chestnut also does well. There are several varieties of oaks that produce acorns that are edible and, indeed, palatable when roasted. All kinds of acorns are readily eaten by pigs and sheep, and in England they are extensively raised for stock food. All these trees are valuable for producing fuel, and some of them furnish excellent lumber. They are of somewhat slow growth, but their growth may be increased by care in planting and judicious cultivation. As the young trees are difficult to transplant, on account of their tap-roots, it is generally best to plant the nuts in the place where the trees are wanted. As the trees are all stately and have widespreading branches, they should stand quite a distance apart. If they are planted in a field that is to be cultivated while the trees are small, it is desirable to locate them where each will occupy the place of a hill of corn or potatoes. As hills of corn are ordinarily four feet apart, the trees should stand at a distance from each other equal to some multiple of this number, as twenty-four, twenty-eight, or thirty-two feet. The latter distance is best for the trees after they become of large size. The trees, if planted as recommended, will not be greatly in the way of ploughing or cultivating when they are small, and after they become large the land can be seeded down to grass and used as a pasture for sheep, pigs, or young cattle. Nut-bearing trees may also be planted in pastures, along the sides of fences, or on the sides of roads.

A sufficient number of nuts to plant a grove can be obtained with little trouble or expense. They can often be collected by travelling a short distance, or they may be obtained of dealers in seeds. Much has been written about the necessity of keeping the nuts warm from the time they drop from the tree till they are planted. It is altogether likely that they will germinate more readily if they are not allowed to become dry, but it is not likely that their vitality is destroyed or even greatly impaired by their becoming dry. Of course they should not be allowed to become mouldy, as the mould would be likely to destroy the germ. Much has also been written about the necessity of exposing the nuts to the action of frost, so that the two parts of the shell shall be opened before the germ begins to expand. Undoubtedly the freezing is beneficial, but that the germ would force the parts of the shell apart without the previous aid of the frost seems evident from the fact that the pecan, walnut, and butternut, do grow both in a wild and cultivated state in portions of the south where there is not a sufficient degree of cold to form ice. Many tropical countries, like Brazil, produce a great variety of nut-bearing trees, and there is, of course, no frost to aid in opening the shells of the nuts. What is known as the English walnut is a native of Persia, a country in which frosts do not occur. Old practices are often followed for centuries for the reason that no one ascertains by experiment whether they are necessary or not. If it can be demonstrated by experiment that thoroughly dried nuts will germinate and that freezing is unnecessary a much greater number will be planted. Many now neglect to plant them because they cannot obtain them in the condition they think they should be to insure germination.

And the trees mentioned are desirable for affording shade as well as for the purposes of ornamentation. To cause a rapid growth the ground where they are planted should be put in good condition. It is true that the roots of these trees will force themselves through very hard soil, but they will extend further and afford more nutriment to support the trees if the ground is rendered soft. It is advisable to excavate quite a hole where the tree is to stand, and to loosen the subsoil at the bottom of it with an iron bar to the distance of several feet. This will afford a chance for the tap-root to extend. The hole should be filled with forest leaves, well-rotted manure, and fine soil. It is well to plant several nuts in the same place, and to select for raising the sprout that gives the greatest promise at the end of the first or second season. Strong stakes to protect it against animals should then be placed on each side of the tree. The soil for several feet around the tree should be kept free from weeds and grass, and well worked or covered with mulch.

There may be little profit in nuts that can be computed in dollars and cents, though they may often be sold to good advantage to persons who wish them for planting or eating purposes. They add, however, much to the enjoyment of life. Nuts are promotive of sociability and pleasure. A few nut-shells thrown on an open fire will cause the room to be filled with a delightful odour while they make a cheerful blaze. When home grown they furnish cheap luxuries that farmers can hardly afford to do without. Nuts have long been associated with pleasant conversation. In one of the sweetest songs of Tennyson an old man is represented as addressing his wife in these words:—

> "So sweet it seems to thee to talk,
> And once again to woo thee mine;
> 'Tis like the after-dinner talk
> Across the walnuts and the wine."

ICE AND ICE-HOUSES.

How to procure and preserve a supply of ice in the best manner is a question which, just at this season, occurs to a great number of farmers and dairymen.

In cutting ice the tools required are a saw, an ice-hook, an ice-float, and ice-tongs. The saw may be a common cross-cut, from which one handle and socket are removed, so as to leave one end clear. The ice-hook is a pole about twelve feet long, having a sharp-pointed spike at the end and another projecting at right angles, about three inches from the end, in the form of a hook. This tool is to push or draw the cakes of ice to the loading place. The ice-float is a piece of board about six feet long, having hand-holes cut at one end, and at the other a thick cleat nailed across to hold the cake of ice. This float is pushed under the cake of ice as it is brought to the landing place, so that the ice may be lifted and drawn out of the water on to the bank. The ice-tongs are simply a pair of grab hooks, with sharp points and handles, by which the block of ice is lifted into the sleigh or waggon.

The ice should be cut into rectangular blocks of equal size; a convenient size is 16 x 24, or 12 x 18 inches, according to the thickness and weight. These are convenient sizes for packing, as they match the size and shape of the ice-house, whether it be square or in the proportion of 12 x 18 feet or 16 x 24 feet.

The ice-house requires four special necessary points to be secured: First, a dry foundation; second, the exclusion of air; third, a sufficient non-conducting covering for the ice, and fourth, ample ventilation above the ice.

The packing of the ice is an important matter. The mass of ice should be solid and without any air spaces in it. As the blocks are brought in evenly cut they are fitted closely; but, as the cutting cannot be done exactly to rule, there will be some spaces here and there between the blocks. As the blocks are built up, some spare pieces should be broken finely and the dust swept with a broom into the crevices and packed down with the edge of a broad chisel fitted on to the end of the broom-handle. Every tier should be well packed in this way before another is begun. If this is well done ice may be kept two or three years in any well-made ice-house and will waste very little in one season. At least one foot of dry sawdust should be placed on the floor for the ice to rest upon. The house should be filled in the coldest, dryest weather, and it should be left open a day or two before it is filled. If the weather is very cold the blocks will freeze and the whole mass become very solid if the packing is well done. If inside packing is used this should be put in as the ice is built up and trodden down firmly, and each tier of ice should be swept clean as it is finished. More than half the failures in keeping ice are due to neglect in the packing of it.

By economical management, 100 pounds of ice a day may be made to serve for a dairy of thirty cows with the use of a Cooley or a Ferguson creamery to set the milk in. In making the inside door of any kind of ice-house, pieces of boards are used, placed across the doorway, to keep the sawdust in place, and the space may be protected by several sheaves of straw packed into the doorway. As the ice is used a piece of board is taken away as may be required.

FARMERS' CLUBS.

The thinking, progressive members of nearly every occupation and profession have their clubs or associations. The enterprising farmers of every county should sustain one or more. The following are some of the many important advantages derived from them. They bring farmers together, and often lead to desirable acquaintance and friendship. They awaken thought on many important subjects, and lead to more accurate observations and more accurate conclusions about the results of the various methods of cultivating, managing, feeding, etc. They awaken a spirit of inquiry, and lead to reading and conversation on subjects connected with farming. They awaken a spirit of healthy emulation, a spirit of enthusiasm, and lead to greater efforts to produce good crops and to raise good stock,