The Highland Hardy Raspberry.

The plant is of vigorous growth, from four to five feet in height, affording abundance of wood to support the fruit. The canes are perfectly hardy, and have withstood a temperature of 16 and 20 degrees below zero the past winters without apparent injury. I give no protection whatever, nor do they require it, as the canes bear fruit in abundance to their very tops. Their being entirely hardy is the chief cause of their supplanting so largely the Antwerp and other kinds requiring winter protection. The time is not far distant when they will supplant the well-known Hudson River Antwerp almost entirely in the river counties which supply so largely the markets of New York city. They seem adapted to all kinds of soil corn is usually grown upon, except clay. As an experiment, I have planted them on a diversity of soils, and find that they can be grown with profit even upon a heavy clay soil, if well drained, either naturally or artificially; though they do best on a gravelly soil or light loam. The berry is a bright red, unusually firm, which makes it of great value for shipping to different markets; flavor very good; size medium to large, surpassed in this respect by the Herstine, Brandywine or the Antwerps. The fruit ripens considerably earlier than most red varieties, coming into market or upon the table a little before the Kentucky, Jucunda or Col. Cheney strawberries commence to disappear. Their earliness causes them usually to bring a good price. The Highland Hardy is unusually productive, giving with ordinary culture from forty to fifty bushels per acre; the crop selling in New York from $400 to $600 per acre. Under very favorable circumstances the fruit from small plots has sold at the rate of $1,500 to $2,000 per acre. The latter figures are rare exceptions, but still they show what success has been reached. Plantations may be made in the fall or spring, and usually the young shoots are planted with success as late as the 10th of June. The ground should first be well ploughed—and given a good coat of barn-yard manure. After harrowing, the ground can be marked out with a plough or otherwise—placing the plants four feet apart each way, or by making the rows six feet apart and the plants two and one-half to three feet distant in the rows. The first method permits of better culture, though the yield does not differ materially either way. The ground should be kept well cultivated, except when the fruit is ripening. Manure the plants well late in the fall or in the spring of each year; but not too liberally if the soil is naturally very rich. The second season from planting usually will give a paying crop, though full returns should not be expected until another year. The Highland Hardy has been widely disseminated throughout the land and correspondents report success nearly equal to that obtained upon their native soil.—*Cor. Lake Shore Journal.*

Planting Cherry Trees.

A correspondent of the *Rural Press* gives his experience thus. He says: I go to the nursery early in the fall, the first of November, and select the best trees I can find. If I can irrigate, I take two year-olds, if I cannot water but little, or any at all, I take one year old trees, strong, healthy growers, and pay the price for them. I charge the men that are digging the trees not to rub off any buds near the ground, as I want all these for shade to protect the trunk of the tree from the hot, burning sun. This is one of the four great principles in promoting longevity in the tree and success in the business.

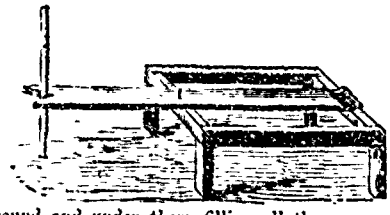
Planting.

My ground is well prepared, graded and levelled for irrigation if it is needed, and staked off the proper distance apart (say 20 to 25 feet each way). In order to save time in sighting to get the trees in a row both ways, I use what we call a "tree setter." It is made as shown in the cut.

It is 12 inches by two feet, the legs are 10 inches long. One by two inch lumber will do, well nailed so it will be firm and steady.

Now take your tree setter and place the fork of the sweep to the stake, press the legs gently and evenly in the ground, being careful to have the stake perpendicular, because if it leans one way or the other, the tree will be that much out of the row. Turn back the sweep. Now dig the hole two and one-half feet in diameter, and two feet deep. Throw in six inches of fine top soil, leaving the bottom somewhat crowning. I have all my trees taken up with long roots, so you see that it requires a good sized hole, that the roots may remain in their natural position and not be cramped.

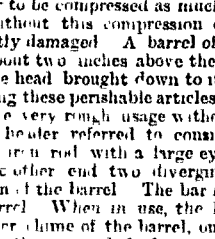
In using the tree setter we dig one hole at a time and plant the tree before we dig another. But before planting we come to another very important item, and that is root-pruning. No tree should be planted until every root that is torn by the spade should be carefully dressed. I take up the tree in my left hand, close to the roots, the top pointing to my back. With a sharp knife in my right hand I prune every root on the tree that has been torn or mashed up with the spade, cutting the bevel on the under side. This gives the roots a chance to pursue their downward course. When the little rootlets begin to start out, they look something like the toes on an elephant's foot, and the cut will heal over in a very short time. The tree is ready to be placed in the hole, where it is to remain as long as you live, who knows? Now turn back the sweep, place the tree where the stake was before the hole was dug, being careful to keep the tree plumb, as before directed in regard to the stake. Let your helper hold the tree in its place. Get down with your right knee on the rim of the hole, your left foot in the bottom of the hole, so you can work easily and comfortably. Carefully straighten out all the small fibrous roots, all the while tamping the



soil around and under them, filling all the open spaces under the seat of the tree. Do not let the roots cross each other or lay on each other, but gradually fill over them with fine loose top soil, separating the roots with earth. After the roots are well covered, spread out your fingers like a scared child, and tamp the soil in and around the roots. This done, fill the hole half full of surface soil. Tramp it lightly. Finish with the soil that was taken from the hole, tramp lightly, leaving it a little basin-shaped, that when it rains the water will run in around the tree and settle the soil on the roots. Planting is done. There is no more work to be done until it is time.

A Non-Patented Barrel Header.

Not long since we saw in operation a useful contrivance for pressing the heads of apple or egg barrels into place. Both apples and eggs require to be packed very firmly to enable them to be transported in barrels with safety. Apples loosely packed in a barrel will come to market in a very badly bruised condition, and if the packing around eggs is not very firmly compressed, the eggs and packing change places or get mixed up, and it is the eggs, and not the packing, which then suffers. A barrel of eggs properly packed, with layers of chaff or oats an inch thick between the layers of eggs, and three inches at each end of the barrel, will bear to be compressed as much as three inches with safety, without this compression eggs are almost sure to be greatly damaged. A barrel of apples may fill the barrel to about two inches above the chime, and will bear to have the head brought down to its place. When barrels containing these perishable articles are thus packed they may receive very rough usage without injury to the contents. The header referred to consists of a bar of half inch square iron rod with a large eye or loop at one end and at the other end two diverging hooks which grasp the bottom of the barrel. The bar is bent to fit the curve of the barrel. When in use, the hooks are placed beneath the lower chime of the barrel, one end of a short lever is placed in the eye, and the lever rests upon a block, which is set upon the head of a barrel properly placed in position. A strap or cord, with a loop or stirrup at one



end, is fastened to the other end of the lever. The foot is placed in the loop or stirrup, and the weight of the body thrown upon it brings the head of the barrel into its place, the hands being free, the hoops can be driven down tightly without the help of an assistant. Without the use of the cord and stirrup, two persons are required to head barrels, but with the aid of these the services of one can be dispensed with.

Cultivation of the Cherry.

At the last meeting of the Maine Pomological Society Mr Fernald, of Harrison, remarked as follows upon this subject.

There is but one universal maxim for the cherry tree and that is, "a dry soil for the cherry." It will thrive in a variety of soils, but a good sandy or gravelly loam is its favorite place.

It will grow in much thinner and dryer soils than most other fruit trees, but to obtain the finest fruit, a deep and mellow soil of good quality is desirable. If forced to grow in wet places, it soon decays and is very short-lived. Cole remarks: "A soil where Indian corn is not liable to suffer from drought or wet is best for the cherry." I consider location, having proper regard to the quality of the soil as to richness, the most important consideration in planting the cherry. An instructive example in the speaker's experience was given, showing the striking difference in thriftiness and growth of trees only a few yards apart as affected by varying degrees of moisture or fertility. Remarks on the propagation of trees in the nursery, with interesting quotations from eminent sources were also given, which want of space compels us to omit. Grafting is said to be a difficult operation, and should be done in early spring if at all, before the slightest swelling of the buds, and before the frost disappears from the ground. Mr. Thomas admits that in propagating the slower growing or sour fruited varieties, good trees are often soonest obtained by grafting or budding them at standard height on large, straight stocks. Experiments in trying to propagate the Hearts and Bigarreaus on the common Kentish stocks, have generally failed. But the May Duke and Morello will succeed well on the common "tame" or Kentish stock. Mr. Fernald had succeeded in grafting the May Duke on small stock of that variety after the first of June.

The cherry requires but little cultivation further than supplying old trees with a little dressing occasionally, to keep up their vigor, pruning out a dead or crossing branches, and washing the stem with soft soap, should it become hard and bark-bound. Ploughing or any deep cultivation near cherry trees should be avoided. A. M. Purdy of the *Fruit Recorder* says: "In growing cherry trees in a light, loose soil, the less the ground is stirred the better." *The London Journal of Horticulture* says: "Fruit trees like solid soil, not loose," and advises "keeping fruit tree borders solid and mulched with manure." "Pruning," says one writer, "the cherry very little needs, and as it causes the gum to flow and brings on decay, it should be avoided except when really required."

The disease known as black knot was fully discussed, and the various theories of its causes considered. One writer says potash in the soil is a preventive of the black knot. Another distinguished writer and investigator pronounces black knot a fungus caused by the working of the microscopic insects or larvæ which poison the sap, and asserts that the black knot is "a sequence and not a cause of disease."

Of varieties to plant, the Early Richmond, Early Purple Guigre, May Duke, Black Heart, and several others were described and recommended for cultivation. Several instances of the remarkable productiveness of the Black Heart cherry in Maine were cited. The cultivation of the cherry has, of late years, become a success in Massachusetts, and commands a high price in Boston and other markets. Some regard cherries an unsafe fruit for shipping purposes, but it is believed to be as safe to transport them by rail or steamer as most other kinds of soft, perishable fruits. Besides there is a good local market in every village in Maine for many bushels of this fruit at remunerative prices. A cherry grower would only have to show his fruit, for it to be purchased at sight with cash at hand. This branch of the subject was presented in a favorable light, and cherry culture described as a profitable business.

Small Potatoes for Seed.—A correspondent to the *American Farm Journal* says.—I find it the custom among my neighbors to keep out small potatoes for seed. They say a small potato will produce a better crop than a large one. One man said experience convinced him that a potato which was not full grown was a better one for seed. One year he had a very large field to plant and supposed he had ordinary seed enough to go around. But his men came to him before they had reached the farther side, saying they were out of seed. The only potatoes he had was a pit of small ones he was feeding to his stock. He sent them to it for seed, but not expecting they would yield much, if any. When he dug his crop he found the best potatoes where these small ones were planted.

Asparagus.—At a meeting of the Farmers' club of the American Institute N. Y., Messrs. Bruen and Curtis gave the following suggestions relative to the culture of this highly relished vegetable. The roots should be put four inches deep and sixteen inches apart; the ground must be well manured and forked over. Salt should be liberally used, a bushel and a peck might be put on a bed 18 by 36 feet. He never cut after 1st of June. In cutting it was important not to go too deep. An asparagus bed would last an almost unlimited length of time if taken care of. Also, in spading asparagus beds it was important not to injure the crown of the root, which came near to the surface. Continual cutting will, in time, kill asparagus, like any other vegetable. Young asparagus beds should not be cut much for two or three years. A foot of horse manure should every season be put on the beds. Every farmer should have an asparagus bed. It was a most healthful food. The expense of planting a bed was very small. No spading and forking were necessary; nor was salt essential, though it was good.