THE NURSERY.

Planting Root Grafts.

The implements necessary for this work are two dibbles for each set of four men, a roller, malleable iron rake, a rope three-eights of an inch in diameter, and a mallet for driving stakes. The dibbles, made expressly for this purpose, are somewhat in the shape of a trowel, but convex on both sides and longer. The roller is made roughly by sawing a section of eight inches off a log of the diameter of 18 inches or 2 feet. A hole is bored through the centre, in which an axle is placed, after the wheel-barrow style; two straight pieces of lath are used for the shafts, which are kept steady and in place by two cross-pieces of lath, one nailed near the roller, and the other near the handles. Cleets are nailed on the rim at such distances apart as we wish the plants to stand in the nursery rows. In marking the rows, the ground should first be smoothed with the iron rake where it is intended to place the row. The rope is then drawn tightly from one side of the block to the other, and fastened at each end by stakes driven into the ground in such a manner that the rope is brought close to the ground. The roller is then passed over the rope, pressing it into the ground, leaving when taken up a distinct mark. The tracks crossing the line at equi-distances, made by the cleets of the roller, guide the planter in setting the plants The trowel should be set in strictly perpendicular, then pulled quickly toward the planter; the plant is then thrust in by a quick and dexterous movement, the dibble following close behind to press the soil firmly to the root of the plant. The earth must be very firmly pressed to the root of the plant in setting, and too great care cannot be exercised in this particular. More failures occur from neglect of this precaution, than from any other cause. * * *

It is very important that the last working of the soil should be done immediately in advance of the planters, as fresh and moist earth is necessary to proper setting.

Root grafts should be placed deep enough in the ground so that but one bud appears above the surface. It is better to keep the "heads" of the plants a little above the level, say from one to two inches; which can be done by finishing the filling up with a hoe. The stakes should be ready to mark the varieties at planting time, and the names should be written indelibly and legibly. A very good stake is made of strips of pine, planed on one side and sawed 1x2½ inches wide and two feet long. The stakes should be coated with white lead, and while yet moist, branded with stencil-cut letters, using simply lamp-black and water. Aside from the stakes, a record should be kept of the number of rows of each variety, taking some one point to reckon from.

The plant should not be long exposed to the air in removing them from the boxes. Just before planting, the roots should be dipped in grout, i. e. a thick puddle, made of clay and water, so that they go into the ground covered with mud. The boxes containing the plants should only be brought out of the cellar as needed, as they do not bear exposure to the air and wind, but soon shrivel Should the plants at any time show signs of shrinkage in the boxes, give one thorough watering and then allow them to rest. Frequent waterings are very dangerous.

Never plant when the soil is too wet to work mellow; but plant as early in the season as the soil can be put in good condition.

The first working necessary will be about the time the weeds begin to show signs of life, when the hoe must be put in promptly. The first cleaning, on account of the small size of the plants, is best done by scraping away the ground from the trees about the width of the hoe, and just deep enough to kill the grass; afterward following with the cultivator as near as possible to the row without moving the plants. The hoeing process may have to be repeated, but usually once hoeing will be found sufficient, if the cultivator teeth are narrow enough to allow close cultivation. Some hand-weeding will always be found necessary near the trees. A cultivator with the narrowest teeth possible, and these slightly curved forward, is best for the first half of the first summer, after which a plow, with thin, narrow shovels, will be needed in conjunction with the cultivator. Keep the surface of the soil always mellow; going over it especially after every rain Deep cultivation in the nursery rows is not advisable, as the roots must not be mangled.—*Heikes' How to Start a Nursery.*

THE VINEYARD.

Grape Growers' Maxims.

The following rules are given by the *Rural American.*

1. Prepare the ground in fall; plant in spring.
2. Give the vine plenty of manure, old and well decomposed; for fresh manure excites growth, but does not mature it.
3. Luxurant growth does not always insure fruit.
4. Dig deep but plant shallow.
5. Young vines produce beautiful fruit, but old vines produce the richest.
6. Prune in autumn to insure growth, but in the spring to promote fruitfulness.
7. Plant your vines before you put up trellises.
8. Vines, like old soldiers, should have good arms.
9. Prune spurs to one well-developed bud; for the nearer the old wood, the higher flavored the fruit.
10. Those who prune long must soon climb.
11. Vine leaves love the sun, the fruit the shade.
12. Every leaf has a bud at the base, and either a bunch of fruit or a tendril opposite to it
13. A tendril is an abortive fruit bunch—a bunch of fruit a productive tendril.
14. A bunch of grapes without a healthy leaf opposite is like a ship at sea without a rudder—it can't come to port.
15. Laterals are like politicians; if not checked they are the worst of thieves.
16. Good grapes are like gold—no one has enough.
17. The earliest grape will keep the longest, for that which is fully matured is easily preserved.
18. Grape eaters are long livers.
19. Hybrids are not always high bred.
20. He who buys the new and untried varieties should remember that the seller's maxim is, "Let the buyer look out for himself."

THE WINDOW GARDEN.

Plants for Sunny Windows.

Vines for the window, whether in summer or winter, are now the fashion of all fond of winter gardening. A pleasant idea of what plants to place in the window is gained from the following suggestions of a Boston exchange: "If your window is sunny, there is no limit to the flowers you may have from Christmas until the wild ones come again with two maurandias, one white, the other purple, with a high colored dwarf nasturtium (or tropeleum as it is called), an English ivy, and a vigorous plant of German ivy (or senecio scandens) you can make a screen for your window more beautiful than any Raphael or Da Vinci ever designed, for yours is the perfect original of their defective representation. The vines should be at the end of the box, so as to be trained on the sides and over the top of the window frame. Then close to the glass, for, true to its name, it loves the sun, put a heliotrope or two, a trailing winter blossoming fuschsia, a scarlet geranium, and for the sake of contrast, a white one, whose blossoms have a bright eye in the centre Do not be afraid of crowding the plants, but sow mignonnette and sweet aslyssum seed as well as the tiny ones of linaria cymbalaria or coliseum ivy. If not intending to have but one box, do not forget a plant or two of the neat, handsomely marked petunia, for they will give you a mass of flowers from the first week of blooming until put out in the garden in the spring Yellow myrtle and the plants commonly called wandering Jew and ice plant, as well as a variety of scarlet geranium known as beefsteak geranium, may be made to droop over the front of the box, and their graceful sprays will reach even to the floor, if you wish.—*Ohio Farmer*

Cranberry Crop.—A cranberry field in Burlington County, containing one hundred acres, has employed three hundred hands, who picked by the bushel, clean as they go, making good wages. Fifty acres picked over, yielded 7,000 bushels, four acres of which produced, what seemed to us enormous, 1,000 bushels. Twenty acres more gave only, 3,000 bushels, and the remainder made up the quantity to over 7,000 bushels, yet the owners complain of the shortness of the crop. They hope, however, to improve their prospects by gathering from the remaining fifty acres 10,000 bushels more. They expect to sell all to one dealer at $4.00 per bushel.—*Practical Farmer*

Hilling of Potatoes.—A correspondent of the *Rural New Yorker* tried an experiment last season with raising potatoes by hilling, and by leaving the surface flat. The summer was wet, giving the hilling the advantage, if any. The result was about the same quantity for each, but the potatoes from the part not hilled were larger, fewer in number, and finer in quality. He thinks much labor, worse than useless, is expended in hilling potatoes.

Fences, Gates, &c.

A Cheap and Substantial Fence.

Allow me to tell you how to make it. First stretch a line where a fence is to be made, then have prepared posts that are sharpened to a point that are seven feet long and about six inches through. Measure off eight feet of the ground and make a hole with a pointed bar about three feet deep, and set the post firmly into the hole, and continue on as the length of the line or fence to be built. Then plow on each side of the line its length, so as to enable you to shovel easily. Then make a bank from each side of the line three feet high Have the bank two feet wide on the bottom and one foot on the top Smooth it off nicely on both sides. Then nail on the posts a board six or eight inches wide and sixteen feet long about six inches above the bank. If the posts are too long saw them off even with the bank, then sow each side of the bank in quack grass, and sow it on fully from the bottom to the top, and on the top of the embankment; and the fence is finished. In a short time the quack grass will sprout and grow, and the mud will form a sward that will hold the bank from caving or sliding down, and the older the bank the stronger will it become. For who ever knew of quack grass ever running out of land, or of its roots growing weak or less This makes a cheap, neat and durable fence, and as the grass grows on the sides, stock will eat it off and prevent its going to seed, for quack grass is always sweet, and cattle and sheep will eat it readily Nor will it spread, for the ditch will prevent its roots crossing Also, if it were to go to seed, it can easily be moved before it gets to seed. Such a fence will be firmly located, and nothing will go over or through it. The roots of the grass in a few years will penetrate through the embankment, holding the dirt and post tight, so that frost, floods, or treading of any kind will not affect it. Such a fence will do better on a permanent line or highway fence, than for an inside fence that is to be taken up.—*New York Tribune.*

Painting Shingled Roofs.

The true way to paint a roof is to apply paint to some kind to both sides of the shingles It is quite as important that the underside of every shingle be covered with paint as the surface, to prevent the water from being drawn up between the courses by capillary attraction. If good shingles are painted on both sides, and good paint applied to the roof once in ten years, it will continue leak-tight for more than a hundred years. * * * When roofs are not painted, moss is liable to collect at the buts of every course of shingles, which promotes their decay more rapidly than alternate rain and sunshine. When oil paint is used for painting shingles, it is always better to employ some light color rather than black, as the apartments of the attic story, beneath a black roof, are liable to be uncomfortably hot in the summer; and more than this, as black paint absorbs more heat than any other color, neither the paint nor shingles will endure as long as if the roof had been covered with some light-colored paint. A metallic roof covered with light-colored paint will last much longer than if it had been painted with black paint. The most economical paint for a roof is a generous coat of coal-tar once in a few years; but coal-tar will color the water for five years after a coat is applied to the roof.

Farm Gates.

Some farmers never take time to make a gate or have one made (a farm without a gate is like a house without doors—no way to get in without tearing a hole through). Cheap gates are generally worthless One great mistake is that two-horse gates are made too heavy for their hinges. Three inches square is heavy enough for the hinge-post. The boards or bars should be sawed ten and a half feet long; four inches wide, one inch thick at one end, and three-quarters at the other; thus the heaviest end of the gate next to the hinges. Lumber sawed as above stated is not as easily warped by the sun as if sawed otherwise. All the field and barn-lot gates should be five feet high. When work horses are taken from a field or lot through a gate and there are young colts that wish to follow, they will invariably try the gate first, and four times out of five, if they cannot get through or over the gate, they will try no place else. It helps the looks of a farm so much to have nice gates. Not only this; farmers that tear down their fences to get into their fields, and lay up the gap when they come out, lose so much valuable time during the summer months, when farmers have no time to lose.—*Farmers' Union.*