

Growing Large Bunches of Grapes.

Mr. John Currer, of Eskbank, Dalkeith, Scotland, gives the *Garden* the following account of his mode of growing a bunch of grapes, weighing 26 pounds, lately shown at an Exhibition in Edinburgh:—

The vinery in which the large bunch of Raisin de Calabre grew that I staged at the international fruit and flower show at Edinburgh, is a small lean-to house with a southern aspect. It measured 20 feet in length by 14 in breadth, and 11 feet in height at the back, and is heated by four rows of 4-inch hot-water pipes. The vines were planted in 1868, and produced four bunches each, the third year after planting. They are planted three feet apart in the inside of the house, with an outside border 13 feet wide and 4 feet deep, the soil of the border being composed of one-half yellowish clayey loam and one-half light gravelly strongly impregnated with iron. With this soil are mixed a few half-inch bones and a small quantity of manure. The border is top-dressed every year, inside and out, with three inches of cow or horse manure, and gets no protection from rain during winter. There are five vines in the house besides the Raisin de Calabre, viz.: two Black Alicantes, one Lady Downes, one Rowood Muscat, and one Mrs. Pince, all of which carry bunches about the average size. The Raisin de Calabre which bore the 26 lbs. bunch produced three other clusters, one of which weighed 6 lbs., another 10 lbs., and one that still hangs on the vine is calculated to weigh about 18 lbs. This gives just 60 lbs. of grapes for one rod about 14 feet long. The vines are usually started about the 15th of February, when the house is shut up for two weeks without fire-heat. The third week they are assisted by a little fire-heat, and are also syringed several times each day until they break into leaf, after which the syringe is never used. I leave from two to three inches of air on all night, both at back and front, according to the state of the weather, and give very little fire-heat, except when the vines are in bloom, until the grapes begin to color. The inside border gets a thorough soaking with water three times a year—at starting with clean water, again after the berries have set, and finally, just before they begin to color, with guano water. Under this treatment the leaves grow large and leathery, which, with well-ripened wood, I consider to be the secret of getting large bunches of grapes of good quality.

Destruction and Supply of Timber.

The destruction of the old forests in North America is a subject above all others connected with the natural wealth of the country that engrosses the attention of thinking men. All admit that to the denuding of the country is to be attributed much of the failure of crops, now of so frequent occurrence, and many parts of the country already begin to feel the scarcity of timber for the many purposes for which it is required. The following article from the *Western Farm Journal*, on the destruction and supply of timber, is well worth our consideration:—

Now that the West is fully alive to the necessity of planting timber, not only to supply the annual waste of the country, but also—and this is really the most important item—as a means of ameliorating the climate, and preventing the recurrence of destructive storms, it may not be uninteresting to our horticultural readers to know something of where the timber annually cut for market goes to.

It has been estimated that 80,000,000 of young trees are consumed every year by railway companies for ties alone. Besides these there is used enormous quantities in the building of cars, for fuel, fencing and other purposes. The fences of the United States are estimated to have cost \$1,800,000,000. To keep these in repair costs over \$100,000,000. The destruction of timber in clearing up new farms in timber countries is still immense, insane as it may seem, that such valuable property should be ruthlessly burned. It is estimated that between the years 1860 and 1870, fully 10,000,000 acres were so burned.

The Forest lands of the United States are rated at 380,000,000 acres, and the total annual consumption of forests is estimated at 5,500,000 acres. Of this; 2,500,000 acres is required for fencing, and 2,000,000 acres for lumber, leaving 1,000,000 acres for other uses.

About 50,000,000 cords of wood are yearly consumed; 5,000 acres are necessary for charcoal, and 20,000,000 feet of lumber are annually produced. In other words, 40,000 acres are cut for ties, 600,000 acres for fuel, and 2,000,000 acres for lumber.

Oregon and Washington Territory contain now

the only great tract of timber untouched, covering one-half of the first named, and one-third of the latter. When this vast belt of timber is broken into, and it will be soon after the Pacific railroad is built, there will then remain no great timber belt in the United States. Michigan has already been so seriously encroached upon that they are already beginning to feel the effects in climatic changes. Wisconsin is fast following. It is estimated that what timber remains in Michigan, Wisconsin and Minnesota will have been virtually swept away in ten years.

Where does it go? To all the lake cities and the East; every town and farm in Ohio, Indiana, Illinois, Iowa, Missouri and the South. Kansas and Nebraska alone consume 50,000 acres of Wisconsin lumber each year.

The Eastern States are thoroughly denuded of valuable timber. Even the once great forests of Maine are becoming almost extinct. Pennsylvania has but a limited supply, and the only wooded tract in New York is the Adirondact, and this principally on account of its inaccessibility. The South has much timber, but as a rule only in situations difficult of access.

To those who have seen the exhibit of cultivated timber in the Iowa section of the Agricultural Hall at Philadelphia, and the comparatively short time in which this has been grown to its present size, the problem of the cultivation of timber will not be one difficult of solution. It is the fact that on all good prairie soils timber may be grown as a source of profit, if the farmer can wait for his returns for a few years. The difficulty is, most people, even those fully alive to the importance of the subject, put off planting year after year, thinking next year I will begin. Alas! next year, like to-morrow, never comes. Thus the day of profit is also delayed. We reiterate what we have often written before: on all prairie farms belts of timber will pay in the protection they afford to crops alone, and the growth is clear gain. It is difficult to make many understand this. Nevertheless some do, and these are the ones who will soon reap profits, while their fellows are waiting to see how that class succeed.

Fruit Trees.

Fruit trees, by the average owner of land, should be planted for family reasons—that is to say, in order to have a supply of fruit always at hand on one's own place. It is strange that people should have no better reason to give for purchasing fruit trees than that they could not get rid of the peddler without, though they must pay high prices for poor trees, which may never turn out as represented, unless the peddler of trees is a purer being than the peddler of other articles. Still, it is well that some trees are planted—and even trees bought under such circumstances as these, may as well be cared for, for they will, or may, be of some use in the end.

Many persons ask what land is best for certain fruit trees, and what manures are the best to use. There is no doubt but that some soil is better for trees, and some manures more effective than others, but this is in a professional sense, where special excellence is desired, and need not worry the average man. There is no soil nor any manure that is ready to one's hand but is quite good enough for ordinary purposes.

The trouble with most people, and the reason why trees so often fail is, that the roots are allowed to get dry. Dry roots are a worse condition of things than poor roots; and then the earth should be hammered in very tightly about the roots, and the trees severely pruned. Not one tree in ten thousand need die if these things are really attended to.

The after culture of trees is very simple. Keep out insects from the stems of the trees near the ground; do not disturb the surface roots by digging or plowing near them; and spread on the surface above the roots, now and then, something for them to eat.

MOSS ON YOUNG TREES.—We hear the enquiry many times every year—"What shall we do to prevent moss growing on our young fruit trees?" It may be removed by washing with weak lye, or thin lime whitewash, or strong soap-suds. Or it may be simply scraped off, if thick, and the bark then washed with soap-suds. Moss is more apt to grow on feeble, stunted trees, with old rough bark, than on thrifty smooth ones, and hence good cultivation and vigor are best to prevent it. Sometimes it is the result only of the trees being much shaded, in which case it is not to be regarded as a formidable evil in itself.

EARTHING UP TREES.—It is often advised to raise the soil about the trunks of trees as a protection against mice, and for other purposes. But it is questionable whether in guarding against one form of injury we do not run the risk of another. We have noticed a tendency in trees thus treated to rot around the collar, and there is also danger of the earth getting permanently raised so high as to shut out the small rootlets and fibres from that access of air which is essential to their healthy growth. Sometimes in raising a piece of ground or levelling it for a lawn or other use, the general surface is elevated a few inches. The result is either a stunted growth or actual death to the trees, whose roots thus become too much buried. Boxing around the trunk is resorted to in some cases to obviate this evil, but it is ineffectual, because it is not the stem of the tree merely, but the entire expanse of roots, which is affected. When improvements are undertaken which involve raising the ground where trees are already growing, we may as well face the necessity of making a new plantation, for there will never be any satisfaction in the old one if it is doomed to deeper burial.

Owing to the failure of the English orchards this year very large shipments of apples are being made to Great Britain. When the crop of apples fails at home the English generally look to Jersey and Guernsey for their supply, but this year that source could not be relied upon. Single American houses are shipping as much as 15,000 barrels a week to Europe, England, as said, being their principal destination.

Although, says the *Scientific American*, there are no available statistics to show the exact rate of speed with which they are using up the wood supply, it is easy to see that it is being done with great rapidity. Taking the legitimate use of lumber, industries based on its manufacture, constitute the second point of magnitude in America, and are only exceeded by the iron interest. About 150,000 persons are stated to be employed in producing sawed lumber alone; \$143,500,000 are invested therein, and 1,395,000 laths, 2,265,000,000 shingles, and 12,756,000,000 feet of timber are yearly manufactured. On the secondary interests based on the use of lumber as a raw material—carpentry, cabinet-making, ship-building, &c.—millions of people are employed. According to Prof. Brewer's assertion, wood forms the fuel of two-thirds of the population, and the partial fuel of nine-tenths of the remaining third. Add this to the former estimate, and some idea will be obtained of the enormous drain upon the American forests that is constantly in progress. As a fact, it is well known that in 1871 as many as 10,000 acres of forest were stripped of their timber to supply Chicago with fuel, and yet no attempt is made to reproduce. — *Land and Water*.

FREEZING APPLES.—A sprinkling of sawdust was put in the bottom of the barrel, then a cake of ice, fitted in the sawdust, then apples set on end as thick as could be packed, then sawdust sprinkled on these apples again, and so filled, and packed away in the ice-house, covered well with sawdust, and they were fresh and good when taken out. I have found good apples in the leaves under the trees in the spring, where the snow laid on. Apples can be frozen up in the fall in tight barrels and kept so till spring, then rolled into a cool dark cellar to thaw gradually and be all right. I put away a barrel that way once, in a closet in an upper story, and they froze up. It stayed there until warm weather, when I rolled it to the cellar and thawed it out and it was as good as ever. — *Ohio Farmer*.

New forests are said to be growing up in the western part of Massachusetts faster than the old ones are cut off. Especially in the hill towns is this the case. Many a locality that was improved as farm land twenty and thirty years ago, is now covered with a vigorous growth of young forest, the rapid increase in the population of the outlying agricultural districts having rendered such a change inevitable.

The descendants of the short-horn cow Duchess, which Col. Morris, of Fordham, bought at the Earl Ducie's sale in England in 1853, have reached a sale of \$5,000,600. The mother of all this wealth began her existence in 1850.

At the last Falkirk cattle fair, Scotland, there were 8,000 to 10,000 cattle on sale, and between 1,200 and 1,500 horses. Sales ran lower than last year in the cattle ring; the horses were of too high a "grade" for farmers' use, and consequently did not go.