THE FARMER'S ADVOCATE.

Garden aud Orchard.

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The Fern.

The cultivation of the fern in lawns and pleas ure grounds has become very general, and it adds no little to the attractiveness of the ground, whether planted as a relief to the flower garden, or in a fernery by itself. Their peculiarity in propa-gating from fronds, their greatly diversified stems and foliage, make them very popular as objects of study as well as ornaments, while their graceful ness, whether growing among foliage plants and flowers, or wild in their native places, renders them general favorites.

The number of species that have been distinctly described is nearly three thousand. They are met with growing wild in the old world as in the new but the principal home of the order is in Australia and in New Zealand, above all places, where the tree-fern grows to the height of fifty feet. The fertile lava soil and the genial climate of those beautiful islands are especially favorable to its growth.

In Canada, though, the fern is, if compared to the tree-fern, of pigmy size, we have many beautiful species. In a cool, moist place, beneath the shade, of the native forest, a diligent explorer may dis cover thirty distinct species. Those most generally met with are the common brake, the rock fern, the king fern, the oak-leaved and the maiden hair; this last is perhaps the most graceful of our native ferns.

In cultivation ferns may be adapted to various locations, for, though generally found in the shade many of them grow freely in the extreme glare of the sun-beams, if the air is at all moist, and some grow amid bare rocks; several species climb rocks ike ivy, and some, like vines, cling to trees orl climb from rock to rock.

In transplanting ferns from their native woods we should prepare the soil for them like that from which we remove them. I prepare an artificial soil composed of rotted turf, leaf mold, muck and sand, choosing a shady situation. They are gener ally planted on a cairn ; but it, as generally con-structed, is the very reverse of ornamental. +Rock work, as well as rustic wood-work, has a peculiar beauty, but either requires artistic skill and no lit tle taste to make them things of beauty.

In the grounds of our country homes, as well as in cities and towns, it would add much to the beauty of the place to plant a few ferns with the flowers or by themselves. It would much relieve the bareness that is too often apparent

times four-fold. And it prove a little more, for what had been a semi-annual bearer became an annual bearer, and I doubt much if most fruit, if properly fed, would not produce yearly crops of good fruit.

When to Apply Liquid Manure.

One of the common mistakes made by amateur cultivators of flowers, is that of over-manuring. To grow plants in pots properly, but little crude manure should be mixed with the potting soil, un-less plenty of foliage is required. The liquid form is the best in which to apply the stimulant, the chief value of which is that its effects are perfectly controllable and can be made constant if desired. No liquid manure should ever be given when plants are at rest, for if you do the growth is un-naturally continued, and the wood, not having time to ripen, is made worthless.

When the production of fine flowers is desired, manure water should be applied when the flower buds begin to show themselves and commence to Applied to roses the flowers will be largely swell. increased in size and brilliancy of color. To ger-aniums, fuchsias, and other similar plants, the supply should be given more continuously than to others.

When using guano a big tablespoonful to two quarts of water is plenty. Some authorities say it should be left standing until dissolved, but if the guano is put in the watering can first, and the water poured on it, it will be mixed sufficiently. This should be applied at least once a week.

Flower Gardens.

It will soon be time to commence the preparation of all kinds of bedding stuffs for next year's dis-play; in doing this the cuttings should be taken off carefully without disfiguring the beds. The cuttings can be struck in the open air, in boxes, pans, or pots. Upon the whole, we prefer rough wooden boxes, about two feet long, fifteen inches wide, and five or six inches deep. The bottoms of the boxes are perforated, so as to allow of free drainage. Too much stress cannot be laid on the fact that efficient drainage is all-important, when it is intended to keep the cuttings over the winter in the boxes or pans in which they are struck. Cuttings struck and established before winter in properly prepared boxes are easily kept over. We lay considerable stress on this point, because tens of thousands of cuttings of verbenas and geraniums are lost every winter from two causes : being put in too late, and the pans or boxes not being sufficiently drained. A layer of crocks an inch deep should be spread over the bottoms, and over the crocks a thin layer of moss, so as to prevent the soil percolating through, and so choking the drainage. Almost any kind of soil will do to strike the cuttings in ; light garden soil, with a sprinkling of sharp sand, is as good as any.

Do you want hardy apple/trees? Get a hardy variety. The Baldwin, often quite tender, has been found sufficiently hardy upon a thrifty Northern Spy or Red Astrachan stock. Be sure to have a hardy stock if you would have a hardy tree.

August, 1882.

In the fruit garden the strawberry beds should have clean and thorough tillage now, so that they may fully recuperate the vigor and thrift taken from them in the production of the late crop, and the better to prepare them for a good crop next season; then too, when good young plants are de-sired for new beds, it is essential that the weeds and grass be kept away entirely, and the soil loosened up frequently with the hoe. The goose berry crop this year has been of more than usual profit, and we doubt not will induce considerable planting. To any who expect or intend the planting of gooseberries as a market crop, we would suggest not only intelligent selection of soil, but the thorough preparation of the same,-a deep, rich, rather moist soil suits it best. Young grape vines should not be allowed to overbear; clip off fully half the blossoms—and finer fruit with less injury to the vines will be the reward. If the small, feeble looking bunches of blossoms, or newly formed fruit, were clipped off the old vines it would greatly improve what is left. Remove the old or fruiting canes from plants of raspberries and blackberries, soon after all the fruit has been gathered therefrom, and give the young growth the better chance to develop and thereby insure good results for next season.

The Apiary.

How to Introduce Queens.

BY G. W. DEMAREE.

To introduce queens there are but two methods employed that differ materially. One of these methods is to cage the queen to be introduced, and to place the cage (wire-cloth) down right on the frames over the cluster of bees and cover the bees, cage and all, with the bee quilt, and let them alone forty-eight hours, then turn up the quilt till the cage is exposed to view ; now draw out the sliding door and let the queen run out among the bees. Keep your eye on her, and if she is permitted to run down among the bees without being molested, close up the hive and wait fifteen or twenty minutes, then open the hive gently and look up the queen. you will find her imprisoned in a ball of bees, generally on the bottom board. This we call "balling the queen." Don't be nervous or in too big a hurry; just take a large spoon and dip up the ball of bees and turn them out into a pan of water. This will cause them to release her, and set them to swimming for life. Pick out the queen by catching her wings between the thumb and finger. positively will not sting. Never take hold of the queen by the abdomen, as you may injure her. Now, return her to the cage and place it back just as before, and leave it twenty-four hours and try them again, and so on till she is accepted. She will generally be accepted without all this trouble, but not always. The queen will generally begin to lay in one or two days after she is accepted by the bees, and after she begins to lay she is as safe as if she had been raised in the hive. For this reason I keep a watch over her till she has deposited her first eggs. The other method is to cage the queen on a comb taken from the brood nest. The comb is taken out and all the bees brushed off of it. The queen is then placed on the surface of the comb, and an opened cage with thin, sharp edges placed over her and pressed slightly into the comb, thus imprisoning the queen. The comb is then hung back in its place. The bees will generally cut her out and accept her while all is undisturbed and quiet in the hive. If they fail, however, to liberate her in forty-eight hours, the comb should be lifted out and a partial opening made with the point of a knife under the edge of the cage. The inquisitive little subjects will see the point, and will proceed to liberate the queen. a modification of the above methods, I make the sliding doors of my cages so that they will project above the bottom, or, rather, the top, when the cage sets wire-cloth down, and let this projec ting sliding door pass up through a slit made with the point of a knife in the quilt, so that I can draw it out and thus liberate the queen without the bees knowing it.—[Bee Journal,

An Experiment with the Pear Blight.

A. C. reports to the Elmira Farmer's Club his successful restoring to health of a pear tree that was badly affected with the blight. The tree had been a good bearer, but he saw that the top boughs were dead down at least four feet, and every limit on the tree seemed more or less affected. The land was rich with farm-yard manure, but he concluded that it was wanting in mineral food, and ascertaining the mineral supply to the pear tree, he applied the remedy. He says

"I called my man and dug away the soil for six or eight feet around the tree and down until the top roots were all uncovered, and then took 100 pounds of German salts (containing 15 pounds of pure potash) mixed it with four or five times its weight of earth, and spread it over the roots. next took seventy-five pounds superphosphate, and mixed it with earth and spread it on top of the mixture with potash salts. Then I took fifty pounds of lime mixed with earth and spread on top of the potash and phosphate (these contain all the above minerals.) We then drew from the well twenty or thirty pails of water and gave the whole a thorough wetting, and in one week's time 1 could see that the tree was reviving, and blight apparently never extended an inch beyond what it was at the time of making the experiment. The tree bore a small crop of good pears in the centre of the top that summer, but at the extremities of the limbs they fell off. The next year it bore a large and fine crop of pears. None fell off and no in-sects seemed to touch them. The third year was the same, the crop large, fine and smooth, and this, the fourth year, the crop promises as good as the two previous years. Now this proves to my mind, (so far as one experiment can prove anything,) that what we call 'pear blight,' is simply starvation : that the mineral supplies in the soil had become exhausted and the tree was dying for want of food. I fed it, and it got well, and returned me many

Look to the Grafts.

Now is the time to go over the grafts set last spring, and first of all apply additional wax wherever the original application has fallen off by the opening of the slit caused by the rapid growth of the graft, and close every portion of it again securely. Next clip off all grafts that have grown securely. Next clip off all grafts that have grown too freely in a straight stem, in order that they may branch out and add more strength to the main graft and form a more perfect growth. When left unpruned the birds sometimes light upon them and break them off close up to the stump into which they are set, and destroy them. This has happened in several instances with our own newly-set scions.-[Ex.

An Exchange says: Obstinate and vicious horses, by having their attention removed from the object on which their mind is bent, can be made much mere tractable than they otherwise would be. Some are very difficult to shoe, showing a disposition to bite and kick whenever the shoes touch them. A few grains of the ethereal oil of parsley, dropped on a handkerchief and placed be fore the nose of the horse, it is said never fails to quiet his irritable disposition and make him for the time being perfectly manageable.

Mr. Vick is quoted as saying that the "white worm" or any other worm, in pots, may be destroyed by sticking three or four common matches down into the soil, also one or two up into the drain opening. The phosphorus on the match is certain death to animal life, and a powerful fertil izer for plants.