

to flower freely; it weakens the plant too much, and thereby renders it liable to injury from extremes of temperature. Until fully established then, the flower buds should be freely removed; after that it may be left to its own way. But the European varieties are not hardy here, and it is of no use to plant these.

The varieties named by Mr. Parsons as perfectly hardy, enduring a cold at least of *fourteen degrees below zero*, are *Album elegans*, *Album grandiflorum*, *Bicolor*, *Celestinum*, *Candidissimum*, *Ernestianum*, *Grandiflorum*, *Bertie Parsons*, *Purpureum elegans*, *Purpureum crispum*, *Roseum superbum* and *Roseum elegans*.

[We copy the above from the *Toronto Globe*. A few *Rhododendrons* are successfully grown in the gardens about Halifax, where they resist our winter frosts with slight protection. It is a botanical mistake to suppose that *R. Catawbiense* will be found growing wild in any Province of British America; but that is nevertheless a hardy compact growing species, with fine foliage and beautiful flowers, and deserving of more extended cultivation. *R. maximum* is a larger, hardier, and more northern species.—Ed. J. A.]

COLD FRAME AND HOT BED.

In the vicinity of large cities a great proportion of the early produce is either started or raised under glass. For a novice there is no more impressive and pleasing sight than to see extensive hot-beds in February, stretching away for hundreds of feet, in which tens of thousands of the green heads of early lettuce are growing in full vigor under low glasses, within a foot or less of the outer air, while the snow and bleakness of winter is all around. It suggests a magical power, and you feel that you are as near to realizing a chapter in the *Arabian Nights' Entertainments*, as ever will be possible in this matter of fact world of ours. To carry on hot-beds on a large scale successfully is almost an art in itself,—requiring great skill in their structure and planting and in the use of mats and shutters.

Early Tomato plants in a small way may be raised in flower pots or boxes in a warm kitchen window; so also may egg plants and peppers. When raising them in the house, the pot or box containing the seed, should be placed quite near the stove and the soil be kept well moistened until the plants begin to break ground, when they may be removed to a warm window. It is best, if practicable, to have but one plant in each pot that they may grow short and stocky. If the seeds are not planted earlier than the middle of April, for out of door cultivation a cold frame will answer. Select the locality in the fall, choosing a warm

location on a southern slope, protected by a fence or building on the north and north-west. Set posts in the ground, nail two boards to these parallel to each other, one about a foot in height and the other towards the south about four inches narrower; this will give the sashes resting on them the right slope to shed the rain and receive as much heat as possible from the sun. Have these boards at a distance apart equal to the length of the sash, which may be any common window sash for a small bed, or the length of a usual gardener's sash. If common window sash is used, cut channels in the cross bars to let the water run off. Dig the ground thoroughly (it is best to cover it in the fall with litter to keep the frost out) and rake out all stones or clods; then slide in the sash and let it remain closed three or four days that the soil may be warmed by the sun's rays. The two end boards and the bottom boards should rise as high as the sash to prevent the heat escaping, and the bottom board of a small frame should have a slip nailed inside to rest the sash on. Next rake thoroughly in guano or phosphate or finely pulverized hen manure, and plant in rows four to six inches apart. Thin out the tomato plants when quite small, but allow peppers to remain rather thick at first by reason of danger from depredations of the cut worm. As the season advances raise the sashes an inch or two in the middle of the day and water freely at evening with water that is nearly of the temperature of the earth in the frame. As the heat of the season increases, whitewash the glass and keep them more and more open until at about the close of May, just before plants are set in open ground, then allow the glass to remain entirely off both day and night, unless there should be a cold rain. This will harden them so that they will not be apt to be injured by the cabbage beetle, as well as chilled and put back by the change. Should the plants be getting too large before the season for transplanting, they should be checked by drawing a sharp knife within a couple of inches of the stalk. If it is desirable to dwarf the tomatoes and thus force them into a compact growth, transplant into another cold frame, allowing each plant double the distance it before occupied.

The structure and management of a Hot-Bed is much the same as that of a Cold Frame, with the exception that being started earlier the requisite temperature has to be kept up by artificial means, fermenting manure being relied upon for the purpose, and the loss of this heat has to be checked more carefully by straw matting, and in the far North by shutters also.

Horse manure with plenty of litter and about quarter its bulk in leaves, if attainable, all having been well mixed

together, is thrown into a pile, and left for a few days until steam escapes, when the mass is again thrown over and left for two or three days more, after which it is thrown into the pit (or it may be placed directly on the surface) from eighteen inches to two feet in depth, when it is beaten down with a fork and trodden well together. The sashes are now put on and kept there until heat is developed. The first intense heat must be allowed to pass off, which will be in about three days after the high temperature is reached. Now throw on six inches of fine soil in which mix a very liberal supply of well rotted manure free from all straw, or rake in thoroughly Superphosphate or Guano at the rate of 2,000 lbs. to the acre and plant the seed as in cold frame.—From *Gregory's Circular*.

STARTING PLANTS IN THE HOUSE.

Before long many of our readers will be thinking about sowing seeds of tomatoes, egg-plants, and the like, so that they may get them forward early, and have the comfort of them in advance of the general public. Perhaps a few suggestions that may help them to a more full realization of their wishes will be acceptable to most of our readers.

And first a word of caution. In the great eagerness to get the plants forward very early, it is a common mistake to begin too soon. In our climate it is not generally safe to plant our tomato plants in the open ground before the tenth of June, lest they be caught by some late nipping frost, and the care and labour of weeks be cut down in a single night. It will be found, then, to be quite early enough to sow the seed about the twentieth of March, which is some eighty days before they can be planted out, and quite enough to make fine, large, strong plants.

The seed should be sown in light friable soil, and placed in some sunny window. If there be such a window in the kitchen it will be the very best room in the house for the box of seeds, for the reason that the air is more full of moisture than that of any other. In a few days the seeds will begin to grow, and the plants in all probability stand quite too thick together. They should be carefully thinned out, so as to give each plant plenty of room without crowding its neighbor.

The plants may be allowed to remain in the box until the weather will admit of their being removed to a cold frame, where they can be planted out in the soil, or potted off into separate pots, and protected from chilly storms and night frosts by a few boards, and freely exposed to the sun and air in pleasant weather.

A box may be very readily divided into compartments with strips of common