

this moment to ask him to do some great, or generous, or noble, self-denying act, she would have been quite sure that he would have granted her request; as, by a quick, enlightening instinct, the child seemed all at once to be certain that there was more in Matthew Lindhurst's nature to love and to honour than she had ever dreamt of before.

Ruby was standing so entirely hidden by the trees that Mr. Lindhurst, who was coming along a different walk through the shubbery from the one in which she was, could pass by without knowing that she was there; and, taught by some rapid inward intuition, she drew back, and resolved that he should not know she had seen him at this time—something told her that he would not wish any eye except the eye of God to be upon him. As he passed the spot where he stood she heard him murmur,—

“Oh Lord my God, I have sinned against Thee, in that I have let my heart lie dead within me for these many many years.”

After that a turn in the walk concealed him from her sight.

For some time Ruby stood wrapped in wondering thought. Who could Mr. Lindhurst have gone out so early to meet? For she was certain that he had met some one, and that he had been talking to the person, whoever it might be, at the little wicket-gate, and had let the mysterious stranger out at it. What had brought about that wondrous change in his face?

Why, if there was indeed much that was noble and beautiful in his nature, was it hidden by such a thick outside crust of selfishness and indolent self-indulgence, and harsh bitter judgment of his fellow-men? All these questions crowded in perplexing confusion on the child's mind, as she went slowly back towards the house. On one point she made up her mind, and that was, that she would breath no word to any one of what she had seen that morning. She was somehow certain that the old man would rather have it so; and open and fearless as her nature was, Ruby could keep a secret.

(To be continued.)

WINDOW GARDENING.

By COTSFORD DICK.



HERE are many people who dearly love flowers, yet have neither garden nor greenhouse of their own. To such the question how to grow plants successfully in windows is of the greatest interest. With them it is the case of Mahomet going to the mountain. The garden won't come to them out of doors, so they must bring it

into the house. Nothing appears more simple or easy than to buy a few favourite plants, and place them in the window-box, if there

is one, or on a stand in the room. Certainly that is not a difficult thing to do, but that is only the beginning. Now that you have brought the plants indoors, you must treat them properly, much as you would treat yourself; even *more* carefully, for a plant in a pot in a hot room, is more or less in an unnatural condition, and demands the greatest solicitude. Plants have not the same power of resistance in adverse circumstances that human beings have, and a child might sit for some hours in a room the air of which is vitiated by gas with only the effect of a slight headache, a condition of atmosphere which would undoubtedly kill outright a cyclamen or a maiden-hair fern were these plants placed therein for any length of time.

Light, air, and water are the three principal agents which help to nourish flowers and keep them in a healthy condition. Let us consider each in turn.

Light plays a most important part in vegetable existence. Plants are almost entirely composed of water and carbon. When the sap is spread out on the leaves it discharges by exhalation about two-thirds of its water; but this process only takes place in the light, for darkness stops it. The leaves then inhale a portion of oxygen, which uniting with the carbon in the sap produces carbonic acid. The light here again is called upon to help the plants, and has the effect by its continued action of decomposing the carbonic acid thus formed, exhaling the oxygen and fixing the carbon in the sap. Carbon, it is said, is of a very deep blue colour, and being seen through the thin yellowish outer covering or bark of the leaves, causes them to appear green. Hence when from deficiency of light the deep blue carbon is not formed, plants appear no longer green, but sickly. Now although all this may seem difficult to understand and full of strange words, yet if you read it over two or three times carefully, and *talk about it*, you will soon learn what it means. You will also see the reason why plants should not be allowed to remain in bedrooms at night, as in the dark they absorb the oxygen and do not give it out again. Thus they are taking away from the human being, who may be sleeping in the same room, all the life-giving property of the air. Some invalids are very prone to fill their rooms with powerfully scented flowers; these should always be removed as soon as it becomes dark. If you have plants on a stand in the window they should be so arranged that each one gets its full complement of light, and every pot should be turned half round each morning, otherwise they will grow one-sided; the part which is always to the light being fuller and stronger than that which is turned towards the room; but by constantly shifting the pots this will be avoided. A deep bow-window facing south is the best exposure, where the morning sun can come in on the east, and the light of the setting sun on the west, especially in winter. If the choice is between an easterly or westerly window, choose the easterly one, as the morning sun is better than that of the afternoon. The plants should be as close to the light as possible, as thereby there is less danger of their becoming “drawn.”

Air.—Ventilation is quite as necessary in winter as in summer, and there are very few days in the year on which the window should not be opened from the top to admit fresh air. But when you open the window mind and shut the door, for a draught is most prejudicial to plants, as well as to human beings. The more heated the room is at night where your flowers are, the more will they require the renovating effects of fresh air in the morning. Light will not do without air, the free admission of which will render the plants strong and hardy.

Water.—We now come to the consideration

of watering, which is a subject of the utmost importance, and in the administration of which more mistakes are made than in almost any other department of plant culture. The window gardener should thoroughly understand *when* and *how* to water, a knowledge which is gained by experience better than by any hard and fast rules which may be laid down. The principal thing is to keep to a regular system in your watering. Look over your plants every evening in summer, and every alternate morning in winter. Cleanliness is of the first importance. No dirty plant will thrive. The fine dust always floating about a room settles upon the plant, and chokes up the pores of the leaves. Where the leaves are smooth (or shiny) this may be easily removed by washing with a small sponge; but where they are soft and covered with small hair greater caution should be used in the washing of them, lest they become injured in the process. Dirt must never be allowed to become incrustated on the leaves, which are to the plants what our lungs are to us. Nothing is so refreshing to them as a natural shower bath. Never therefore lose the opportunity of giving your plants this healthy washing, and turn them out without fear in the summer time whenever a gentle warm rain is falling. Syringing will in some measure answer this purpose, but the plant should be laid on its side, so as to prevent the water running down into the flower-pot.

A great point to be kept in view is, that in winter water is merely required to maintain life, whereas in summer, when growth is active, enough must be given, not only to supply waste, but to allow of the formation of new tissues. If plants grow freely, copious watering must be the rule, as if the pot is well-drained no bad results need be feared. In a good soil the water passes rapidly away. A plant will therefore generally be the healthiest which requires water the most frequently, as it shows that the roots are assimilating the nourishment afforded them. Do not water a plant that is already wet, but wait until it dries, and then give it sufficient water to moisten the ball thoroughly. A little water is a dangerous thing, as it excites the roots without nourishing them. Better is it to water much and seldom than little and often.

Be careful to empty the saucers in which flower-pots stand directly the water has passed through the ball of earth, and never (as I have seen some people do) pour the water from the saucer back again on the plant. The general appearance of the soil, and feeling it with the finger will, after some practice, teach the amateur when plants require water. Soil, when moist, is much heavier than when dry; you will therefore in time be able to tell the state of the earth in the pot by lifting it and testing its weight.

Now, as regards the water to be used:—
1. Always use soft water in preference to that drawn from wells or springs. And—2 (which is most important of all), never use *cold* water. From October to May the water should always be equal in temperature to the atmosphere of the room in which the plants are growing. In fine summer weather the water is *naturally* warm enough, but even then it should be allowed to remain exposed to the sun for some hours before it is used. Thus water drawn in the morning may be given to the flowers in the evening. In the winter it is an excellent plan to empty the soapy water from your washing basin into a watering-pot, and, adding a little more pure water to dilute it further, apply it tepid to the plants. This is the plan I always pursue, and find it answer admirably. Of course soap as pure as is procurable should be used—a matter quite as important for your plants as for your face and hands! The leaves, however, must not be touched with this soapy

water. Pure water (still tepid) should be given to them, as nothing of the nature of manure should ever come in contact with their delicate fibres; also the leaves must not be syringed when the sun is shining upon them, or they will turn brown. You may water the roots of plants in hot sunshine (although it is not advisable to do so), but never the leaves.

Now let us consider the treatment of your window-garden, first in winter, and then in summer. In winter it must have all the sunshine you can give it during the short day. Often, in a town especially, no ray of sun will penetrate the thick foggy atmosphere, and, when deprived of this natural and healthy stimulant, plants will need all your care and protection. At night, when the curtains are drawn, remove the pots away from the window, which is generally the coldest part of the room. A frosty night will injure them seriously if exposed to the influence of the draught, which more or less comes through all windows. The gardening must be entirely confined to the room in winter. Nothing outside, with our frosts and fogs, will do. If you have a glass box outside the window for flowers, you must leave the window open, so that the plants get the warmth of the room, and this glass box should fit tightly to the sill, so that no draughts are possible. I have seen heaths and primulas killed in a single night in London in one of these cases from the effects of a sudden frost, and where the window into the room was closed. It is most difficult to keep any but the hardiest shrubs in London in one of these window glass-houses. The flowering plants must be in the room.

Now for the plants suitable for the winter window-garden. First, bulbs, which you can put into pots yourself at the end of October. Crocuses, hyacinths, narcissus, winter aconites, and tulips; these will give you a nice show, and are very little trouble. Put in plenty of drainage (that is, pieces of broken crocks), and mix the soil with fine sand, and you will be sure to succeed, and in February you may look for results. Secondly, flowering plants, which if you buy you must obtain as thick and bushy as possible, not long and lanky, and turn the plants gently out of the pots before you purchase them, to see that they have plenty of roots. Your choice will lie among azaleas, the winter cherry, cyclamens, cinerarias, primulas, the yellow coronilla (a capital window plant), heaths, and the beautiful and sweet-scented *Daphne indica*. I consider it a mistake to attempt geraniums or fuschias in winter, as they are sure to get scraggy and leafless. Thirdly, you can have as a background for your flower-stand some foliage-plants, which do well in a room, viz., a dracena, *acubia japonica*, *conymus*, *echeveria*, a yucca (if you have room for it), and a hardy palm, like *chamærops humilis*. A judicious selection from the above will make any room look gay, and afford you the greatest interest all the winter.

The following novel method of cultivating hyacinths has been tried with success this winter:—Place at the bottom of a large china bowl several lumps of charcoal, then a layer of nice green moss without soil. Place the bulbs on the moss, and cover well with more moss. Water about twice a week with tepid water. The bulbs should be planted in a circle, and the bowl placed in the light. I cannot answer for the following recipe for a window ornament, which, however, seems worth trying:—Soak a round piece of coarse sponge in warm water until it is thoroughly expanded. After squeezing it nearly dry, place in the openings rice, hemp, red clover, and canary-grass seeds. Hang the sponge in a window where the sun shines a part of the day, and sprinkle it lightly with luke-warm water every morning for a week. Soon tender

leaves will shoot out, and, growing rapidly, will form a mass of green. If regularly sprinkled the blossoms of the clover will appear.

We now come to speak of summer window-gardening, and I think that nothing answers so well as a box. Plants in pots on a dry position like a window-sill, exposed to the air on every side, quickly get dry in summer, and unless constantly watered too often become withered and stunted. Besides which, if placed in a south window, the pots get so hot that the tender roots inside are scorched and much injured. So that it is better, if you still desire to have pot plants, to protect them in some way, and the best means of so doing is to have a suitable box made to fit the window-sill, in which your pots can be sunk, surrounded with moss or cocoa-nut fibre refuse, to keep them steady, and retain moisture. This box should be as large and as wide as possible, and can be put together by any carpenter for a trifling sum. About a dozen holes should be made in the bottom, and three or four cross strips about half an inch thick be nailed on the bottom so as to allow the water to run away freely. A coat of green paint outside will give it a finish. Much enjoyment can be obtained from window-gardening in summer if, instead of plunging potted plants in your box, you plant them out in soil. Some flowering plants do better in the soil, released from their pots, but, on the other hand, they cannot be changed so easily, so as to afford variety, as when they are in their pots.

In preparing a box for a garden put a good large flat crock, or piece of broken tile, over each hole, and then cover the bottom with about two inches of crocks; over this lay some half-decayed manure, and fill up with soil. Any good garden earth will do if not too fine. Make the soil firm, set the plants well in, and give a good watering to settle it all.

The end of May is about the best time to fill the boxes with plants. As the weather gets warmer plenty of water will be required, which should be administered in the evening, so that the plants can take in all the nourishment and refreshment they want before the heat of the next day begins to tax their strength. If water is given in the morning it is all evaporated in a very short time, and the poor plants gain but little benefit. In order to have your box filled with flowers as early in the year as is possible, put in crocuses and hyacinths in October or November, surrounding each bulb with a little silver sand, and giving little or no water during the severe weather. When the crowns first appear they should be protected against possible damage by frost; an inverted flower-pot is a useful contrivance for this purpose. When the last bloom is over the bulbs should be taken up, and the soil somewhat renewed and prepared for the summer flowers, in the selection of which there is a goodly choice. If you are contented with annuals, some seeds of the following beautiful flowers may be sown in April:—*Collinsia bicolor*, *Veronica Syriaca*, *Kaulfussia amelloides*, *Silene compacta*, *Lep-tosiphon roseus*, *Lasthenia Californica*, *Nemophila discordalis*, *Linum grandiflorum*, *Gilia laciniata*. They should be treated very much as they are in the open garden, thinned out, &c., and will really give a beautiful display of flowers during the early summer. Annuals are too frequently looked upon as common flowers, and therefore neglected, but they amply reward the gardener who cultivates them. They are both easy to grow and effective to look upon. Should the possessor of a box be more ambitious, the following easily-grown plants will doubtless please. They may either be started early in May, or take the place of the annuals when the latter begin to flag—*Calceolarias* (shrubby), carnations,

fuschias (of all sorts), geraniums (flowering zonals), golden feather, lobelias, mimulas, petunias, stocks (intermediate or German), verbenas (*venosa* and *montana*). All the plants may be procured from a nurseryman, and should be quite small and bushy when purchased. A few seeds of *convolvulus major* sown at each end of the box, and trained up strings properly arranged outside the window, will produce a very pretty effect. The same may be said of the *tropæolum canariense* (canary creeper), with its rich yellow flowers and pretty foliage. Creeping-jenny makes a capital edging for a box, as it hangs over the front. We must not forget our old friend and ever-welcome mignonette, which should have a place in every window garden. When the glory of summer has departed, and the flowers are fading, a few pots of dwarf chrysanthemums, and the new Japanese anemones, will keep the window bright until nearly Christmas.

Cut flowers may be kept fresh and blooming with very little trouble. In the first place, do not pick any flower, but cut it sharply from the stem with a knife or pair of scissors. Next, place the flower stalks in tepid water, in which you may drop one drop of ammonia (sal volatile). Renew the water (tepid) frequently, and at the same time apply the drop of sal volatile, and just cut the ends of the stalks off with sharp scissors. By these simple means a vase of flowers will remain gay for a long time.

Ferns are at all times difficult plants to manage, as they require moisture without damp, and shade without darkness. When grown in pots they must have plenty of drainage (crocks), so that the constant water requisite does not stagnate at their roots. In a room with gas the tender varieties will never succeed, unless perpetually covered with a glass shade. A west window is better than a dark corner, as they need some portion of sunlight, especially in an English climate. What they delight in is a moist atmosphere, which in a sitting-room, heated and dried by lamps and fires, can only be afforded them by constant watering and seclusion from the air of the room by means of a hand-glass; while they are so interesting and beautiful that it is worth while to study their culture.

SEASONABLE DRESS AND HOW TO MAKE IT.



FIG. 5.

SPRING—with its violent and sudden changes, its storms and sunshine, which alternate so quickly as to render it most difficult to know