THE GARDEN IN JANUARY.



of the soil this month; half-hearted digging is of no good in January if you wish to keep yourself warm, or if you want to get any warmth into the plants that you will afterwards set out in the soil you are now working. If you send the spade or the spud well home at each step as you advance, you will turn up the slug and other garden-pests that are hoping to burrow deep enough to get out of the way of the gardener and of the frost. And this very frost which, not unnaturally, we all of us dread so much, is in many cases, nevertheless, a valuable under-gardener. The value of its action upon the soil we are now turning up cannot be too highly estimated. Besides destroying the slugs that we bring to the surface, the clods of earth that we afterwards break up with our spade will turn out good pulverised soil, and make it fit to become the nursing mother of the seed that in March we entrust to its care; whereas unprepared soil is but a sorry step-mother, that will only let the seed take care of itself.

Notice next that row of winter spinach; how is it that one or two of the plants appear to have no heart, and that the outside leaves look all coarse and withered? Very likely it is because one day the cook, wanting some in a hurry, came out and gathered it herself, and, captivated by the fresher and greener-looking inside of the plant, carried it off, instead of gathering only the outside leaves from several of the plants. Not far off, again, we espy a row of peas, and the small green tops are perhaps after a mild season just visible on the surface. Now, unless a careful protection is at once given to your peas, the whole will be sacrificed to the frost and the east wind, the slugs and the birds. On the cold side give them a little earthing-up, or a few twigs and small dead boughs scattered along will shelter from much of the wind, while the old remedy of wood-ashes, or a line of soot on each side of your row, will puzzle the slug; the ashes could be spread lightly over the peas themselves.

Another turn brings us to the fruit-garden. At present, of course, we have merely a show of dead sticks-so, at least, would a superficial observer say. Not dead, but sleeping only, we know they are; but the nature of the climate and season must entirely actuate our proceedings here in January. When no frost is about, fresh planting and removals may still go on with safety, and similarly pruning among the walltrees; but we must certainly shut up our knife when the frost comes; still, an early opportunity should be taken to complete the pruning, as not infrequently we have a February like April, and our trees in bloom by the end of the month. A premature spring, however, is more often than not a terror to the gardener. Let us say, then, in passing, that in the event of early blooming among the wall-trees, they will certainly require some kind of protection at night with canvas or gauze. And we may find a good winter day's work in the orchard. Some gardeners advocate the washing of

the bark of trees with brine, or some sort of preparation, to rid them of vermin; others recommend water merely, projected with force against the stem by means of a garden engine. Dig, however, round the roots of all fruit-trees, whether in the orchard or among the wall-trees; it is a delusion to suppose that any disturbance or slight breakage of the root of an established tree is injurious to its welfare. The writer well remembers four peach and nectarine trees that for one or two years proved a complete failure. In the winter of one year they were well dug round, the roots rather sharply pruned, and some rich manure put in: the following summer they were breaking down with fruit, and the June thinning-out seemed quite alarming, but very necessary, as also very successful it afterwards proved.

Then our little greenhouse has to be looked through in its turn; here, again, the season must actuate our management of it largely; air must certainly be given daily-during the best of the day in frosty weather, and at other times and for a longer period during a milder season. Very little watering will our general stock under glass require in January; just enough, very occasionally, to sustain the life of our dormant plants, and that, of course, must be of the same temperature as the house itself. Our stock of cuttings must be noticed, and any little shoot that displays a tendency to grow much ahead of its fellows had better be pinched off. In less than a month our greenhouse collection in every branch will be making an early spring start, and where we are somewhat cramped for room it requires no little device to find shelter for our plants until that fickle and fanciful maiden, the month of May, makes up her mind not to coquette with Father Christmas quite unexpectedly, when we are, perhaps, innocently engaged in bedding-out.

And then, lastly, our open flower-beds. These, if we have followed up the observations made last month, ought to be in their way gay even now; while the winter aconite, and very soon the snowdrop, with close upon its heels the varied-coloured crocus, ought somehow to link the seasons together with one unceasing display of flowers of some sort. Not, of course, that we can expect our January exhibition to be quite so charming as that in July; yet the dullest season has its bright side, and a little ingenuity will, with a little painstaking, give us a winter garden of which we may be justly proud. And, with most of us, the brightest side of our dull season is the month of our Christmas reunion, when our homestead is decked with variegated holly and the Christmas rose: this latter favourite, indeed, looks almost dirty when surrounded in our garden by the dazzling whiteness of the winter snow; but, on our dinner-table, its gay petals are in favourable contrast with the red hollyberry, the pale green of the laurel, and the pretty modest blossoms of the laurustinus. A happy Christmas to all little fingers that can weave so bright a bouquet!

They were little pictures of men, animals, and birds in various positions; flowers, regal emblems, reptiles, fishes, insects, vases, tools, and many signs that were wholly conventional. These were arranged in symmetrical order-sometimes in vertical columns, sometimes in horizontal lines-and are always read from the side towards which the characters look. Bearing in mind the facility and speed with which we form our letters, we may smile at the cumbrous system thus represented; but even to-day the system of picture-writing among ourselves has not wholly faded out. To take one example: in the hieroglyphs a constantly-recurring symbol is the "red crown" of Egypt; and the use of the crown of England on legal and other documents is familiar to all of us, and other instances might be quoted.

At what time this system of picture-writing was originally invented it is impossible now to say. But the Ashmolean Museum at Oxford contains a tablet in this script, which was erected by a king Sent in remembrance of a priest Shira, who was a relative of his. The date of this tablet has been fixed by some Egyptologists as far back as four thousand years before our era, and there is reason to believe that even then this character was of extreme antiquity. Before proceeding to describe the materials used by the Egyptian scribe, we may allude to three specimens of this ancient writing. Two of these may be seen at any time by our readers. One, Cleopatra's Needle, now stands on the Thames Embankment; the other, the celebrated Rosetta Stone, discovered in 1799 by M. Boussard, is in the south gallery of the British Museum, to which it was presented by George III. The third specimen is the "Book of the Dead," parts of which are said to be older than the Pentateuch, and of which the most perfect copy is to be seen in the Museum at Turin.

In contrast to modern articles, we now pass on to describe the materials used in the ancient writing of Egypt. The most fastidious taste can to-day find itself suited in the variety of papers—thick or thin, smooth or rough, coloured or plain—that are offered for sale; but the Egyptian scribe was limited in the

materials at his disposal. Sometimes he wrote on leather, or on pieces of prepared wood, or on linen on which a layer of plaster had been spread. The usual medium, however, was the pith of a reed, the papyrus (from which is derived our modern word "paper"), and which grew in the flat marshy land of the Delta. The process of making this reed-paper is thus described by Sir J. G. Wilkinson: "The mode of making the paper was by cutting the pith into thin slices in the direction of its length, which, having been laid on a large slab or table, received upon them similar layers at right angles, and the two sets having been glued together, and kept under pressure for a proper time, formed a sheet." The sheet thus made was of various lengths; some were over 100 feet, but the width was seldom more than 12 or 15 inches.

With regard to a graphic instrument, the choice was even more limited. We can select, as fancy dictates, either a quill or steel nib, broad or fine, soft or hard; but the Egyptian writer knew nothing of a pen in the proper sense of the word. As a reed supplied him with paper, so a reed supplied him with an instrument with which to draw his picture-writing. But the reed he used was not sharpened or split at the point, like our modern pens, but was frayed out till it more resembled a paint-brush than a pen, and it is nearer the truth to say that he painted his characters rather than wrote them.

For an inkstand he used a slab either of wood, ivory, porcelain, or alabaster, in one end of which were two or more wells to contain the writing-fluid, which was usually of two colours, red and black; but other colours were often employed – such as brown, green, and yellow.

We have thus endeavoured to give some account of the source from which our modern writing is derived, and of the *media* employed by the inventors of the earliest graphic system to delineate their symbols. Our object will have been attained if we have succeeded in impressing on the reader—and writer—the fact that the characters which are so familiar to him are the outcome of centuries and centuries of slow development, and that all writing had its origin in *pictures*, by which objects or ideas were represented.

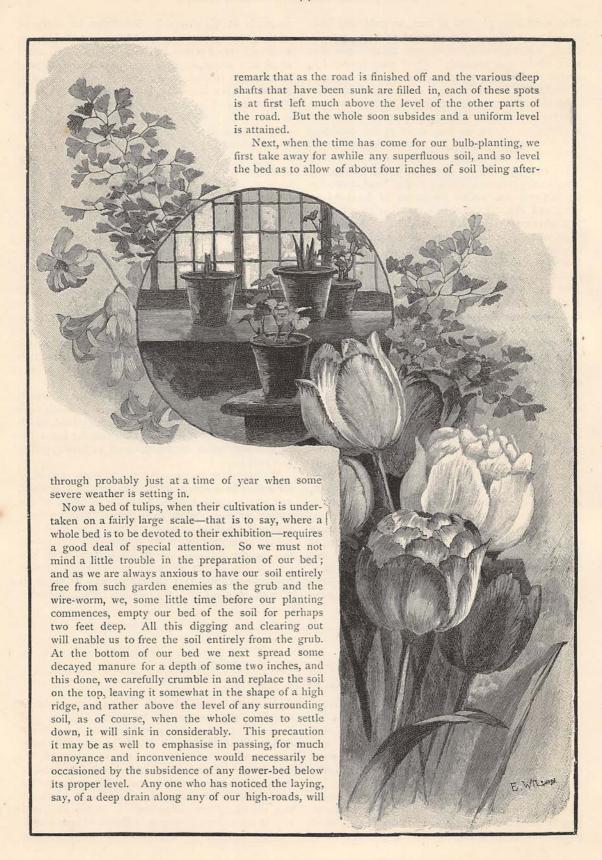
BULBS, AND HOW TO GROW THEM.

THE GARDEN IN FEBRUARY.

HEN treating generally of the garden
in the early spring of the year, our
thoughts involuntarily turn at once
to those subjects in keeping with
the season, and which serve most

to make our garden gay and bright. This brings us to speak of our bulbs in general.

February, then, may fairly be called the month of the year in which our bulb-exhibition commences. But to go properly into the matter we must, more particularly in gardening operations, go first of all to the root of it, and this will involve a few moments' return to the autumn of the year. October and November, then, are the months in which we devote ourselves to bulb-planting. And here we will begin with a caution: while October will do admirably for the setting in of many of our bulbs, such as the crocus and hyacinth, yet a month later—say, the earlier part of November—is best adapted for our tulips. And for this reason: if our tulips are put in too soon, and should the winter that ensues be a somewhat mild one, we shall find the green spike of our tulips pushing



wards placed upon our bulbs; and the surface of the soil we now make perfectly smooth and level with our rake. Before, however, proceeding further, it may be as well to hint at the sort of soil most favourable for the growth of tulips. That which a tulip is said to like most is rotted turfs from a loamy meadow. These turfs should be cut some six inches thick, and after lying some time in a heap, transforming themselves into mould, plenty of chopping up and turning over should be given for the purpose of getting rid of the wire-worm and all such pests. And, indeed, here it may be remarked that perhaps the cause of our failure in any particular branch of gardening, that we now and then devote ourselves to, may very likely arise from the fact that we do not pay enough attention to the preparation of our compost. It is rather a dreary operation, pulling about a few barrow-loads of earth; and so our laziness tempts us to experiment upon ill-prepared or perhaps exhausted soil. The object, again, of our putting decayed cow-dung at the bottom of our tulip-bed is to prevent the roots of our tulip from striking below into any unsuited soil that may lie at a greater depth; and it will be found that the tulip will now spread its fibres all over the surface of the dung, and this towards the end of the blooming season, and at a time when the root is making its most important growth. To return, however, to the actual preparation of our bed for planting.

Along the centre of our bed we now stretch the garden-line, pressing it gently into the soil, say, with our rake, just so as merely to leave a mark; then we move it six inches, and make another line; and so on until we have three lines on either side of the first-made and centre one. Next we make our cross-lines, along the *breadth* of our bed, with a straight rod or stick, and again at intervals of six inches, gently pressing the rod, as we did our line, so as to leave its mark. And here is our bed, all carefully prepared for the insertion of the bulbs. These bulbs we have of course previously sorted out as to colour, quality, &c., and in the same order we now transfer them to the bed. Gently press each bulb into the soil so as

to make it stand upright, and, lastly, cover all over with your four inches of soil.

Thus we have now seven rows of tulips, and they will look best if you have them arranged as follows :-Rows one and seven alike, two and six alike, three and five alike, while the centre row (number four), should be in thorough contrast to those on each side of it. This arrangement is by far the most effective. To revert, however, for a moment to the preparation of the bed for planting; if you wish to avoid the necessity of procuring the two inches' depth of cowdung at the bottom of your bed, use entirely fresh and maiden loam, though of course you must previously go over it all, have it well chopped up, thoroughly pulverised, and purified from grub and wire-worm. All the after-rain, snow, and frost, will do no harm up to the time when we begin to remark the little green spear in this month of February thrusting itself above the ground, and reminding us that the bright but treacherous season of spring has set in. Tulips are for the most part regarded as hardy, and some gardeners allow their tulips-unless they be a very choice selection-to take their chance. Others there are, however, who attribute every faded colour, every notch, and every split petal, to the action of frost. But we prefer in an English spring giving a little protection to our tender crop, in the shape of some gauze or light covering kept pretty closely down during the prevalence of frost; and at a little later date than this, when they begin to show colour, they will only care for the early morning and evening sun, so that from the full blaze of a warm spring-day sun they require protection as well. Who has not sometimes found a tulip completely dropped and withered from exposure to a sudden hot day's sun? Thus much, then, for this pretty spring-show of bulbs. Our hyacinths, and certainly our crocuses, will not give us so much trouble; but the long stems of both tulips and hyacinths will frequently want the support of tying to a small stake. Very busy are we also this month going over our greenhouse stock, carefully re-potting in many cases-an operation to which February has always been sacred.

DADDY PIPES: A SKETCH.



LIMITATION of the sense of human fellowship by a keener sense of human grossness and ignorance is hardly separable from a high degree of refinement, and perhaps the natural antagonism between nicety of perception and neighbourly goodwill becomes more ap-

parent according as we seek for their union lower in the social scale. A man whose personal surroundings are all in harmony with his cultivated tastes may extend a facile friendliness to classes destitute of all that makes life dear to him, but he knows nothing of the irritation excited in a beauty-loving nature by constant and inevitable association with ugly realities.

Such association had been the lifelong trial of old Thomas Hope, a man whose every feeling, every taste, fitted him for the æsthetic enjoyment of a gentle life, and who had yet never had the push necessary to lift himself above the sphere of the skilled artisan. As designer for an eminent firm of decorators he had always had congenial and well-paid employment, but he spent every penny he could spare in what he simply called "beautiful things," and now that he was sixty, lived as plainly as he had at twenty in the two back

he told us his little story. He was a mason from Cornwall, where he had a nice little home, cows, &c. He had come out to take up land, and then send for wife and children. He evidently suffered from home-sickness as well as sea-sickness, poor man. I shall never forget his gratitude, which seemed so entirely out of proportion to the little we had done for him. It quite startled me to hear his feeble voice earnestly praying that "it might be returned to us a thousand-fold both in this world and the next." I think, whenever things seem not quite prosperous in our new home, we shall remember the prayer of that poor man, and feel that it will bring us a blessing.

A dear old woman of over seventy was among the steerage passengers. She was travelling with three daughters, the husband and two children of one, and a young man friend. The old lady had kept a greengrocer's shop in London, she told me; but she had two sons in Canada, and she wanted to make a home for them. This was a most affectionate family party. The daughters hovered incessantly round their mother with cushions, shawls, and offers of food. They had brought a feather-bed with them, sewn to the size of the berth, that the bed might be soft for her aged bones. We often sat by her on deck, and wondered at her courage, for often when she came up in the morning she looked so pale and fragile; but she survived the journey, and we saw the whole party for the 'ast time on the platform at Quebec, all dressed in their best, and evidently starting on their long railway journey in the best of spirits.

One afternoon a good, earnest steerage passenger held a sort of little service on deck. The next day an attempt was made to have a concert and recitations. The captain, doctor, and saloon passengers were among the audience; but the high wind made it impossible to hear the performers, and it was adjourned to the next evening, when it was held in the steerage. On Friday the saloon passengers gave a concert, to

which the intermediate passengers were invited. A collection was made for the Sailors' Orphan Home in Liverpool. The music and recitations were excellent, and one of our number made a capital Punch-and-Judy showman.

Before the end of the voyage every one was required to show their vaccination-marks to the doctor, or submit to be vaccinated. This, it seems, is a stringent and very wise Canadian law. One passenger refused absolutely, and on our arrival at Rimouski—the first port—a Canadian medical officer came off in a boat, and there was a long delay, ending fortunately in the stubborn passenger giving way, thus saving us, we were told, five days' quarantine.

The weather was very windy during the first half of our journey. After this we had a cloudless blue sky and brilliant sunshine, while a sea with scarcely a ripple floated us onward to our new home. It seemed to us as if Canada had opened her arms in smiling welcome to the poor wanderers who were trusting her with their future. I heard the stewardess say, "the weather seemed as if it were bespoke." Even off the Banks of Newfoundland there was not a sign of fog; and, with grateful hearts, we thought of the many prayers that had gone up for us in England, and which were being so wonderfully answered. beautiful Gulf of St. Lawrence reached, we felt our journey was over practically, as we saw the pretty little villages, each with its tiny church, lying so peacefully along the shore; each little farm, with its land running down to the sea, giving one the idea of plenty and room.

And so our voyage drew to an end—the dreaded voyage which had been so much better than all our fears—and we parted reluctantly with the kind people who had helped so much to make it pleasant, feeling we should always look back with a lingering affection to our experience as "intermediate" passengers.

GARDEN WORK IN MARCH.

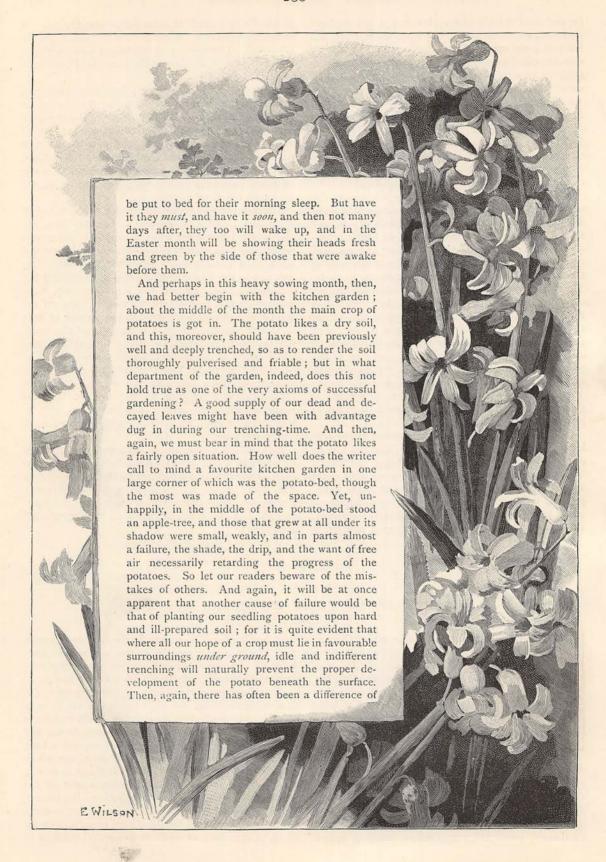


HOUGH each month of the year necessarily brings with it a certain little round of duties in every department of the garden, the month of March, more than all the rest, may be said to bring with it a complete and formidable round of work that is paramount. For what have we been doing all over the garden

during these last two months of January and February? We have been merely, more or less, getting things into training; perhaps the chief, and certainly a very important, operation has been a thorough trenching, while most other matters have been precautionary, protective, preparatory; guarding against

frost, washing our flower-pots for the re-potting season, and, like a careful matron in the nursery, we have been for the most part watching our dormant plants, just as she does the children while they are asleep.

Now, however, everything is suddenly changing; it is a spring morning, and while the lark is carolling in the sky and the children are carolling in their cribs, so also are numberless green points in our flower and kitchen gardens crying out unmistakably for a little attention to be paid to them. In fact, our whole garden, that some time ago went to bed, is now getting up. And not only so; but if we may carry out our not inapt simile of the nursery a little further—for, indeed, is not a garden frequently called "a nursery"?—there is another very large family of very tiny children indeed, in the shape of seeds, that are all impatient to



opinion as to the size and quality of our seedlings, or "sets," as we otherwise call them. Some advocate planting whole and entire quite large potatoes; others cut them into pieces or slices, always, of course, providing that each piece has two or three eyes; perhaps, however, the generality of us are accustomed to plant whole the small-sized potato. So that when the harvesting and storing period comes round in October, you will generally find a gardener, as he is digging them up, have two, and sometimes three, little heaps or classes of potatoes by him-one for the kitchen, another of small-sized ones for sowing, and the third -alas! sometimes necessary-a heap of failures and bad ones for the pigs. Let your main crop be in rows some foot and a half from each other, and plant, using the dibble, not less than five or more than six inches deep; afterwards have the soil raked thoroughly and well over them, but not stamped or pressed tightly upon your crop. Too shallow planting might disastrously expose the tubers to frost; for we must not forget that though the winter proper is supposed to have gone, the winter improper not infrequently returns. Who of us, indeed, can forget that last year in some parts of the country we literally realised the fact that "snow in harvest" was by no means the anachronism that some of us imagined, when we saw the golden grain, after being long sore puzzled as to how to ripen, waving about finally over the whitened and wintry carpet? We have thought it well in this month of March to say a good deal about the potato, seeing that it is one of the staple supplies of every household-only, indeed, next in importance to bread itself. Continuing our sowing process in the kitchen garden, we might briefly notice a few other operations of the kind.

Carrots.—These should be sown on well-pulverised soil. The seeds being, from their nature, rather disposed to cling together, separate them by first of all rubbing them together with a little dry sand, so as to avoid sowing in clots, as it were. This plan will afterwards save you the trouble of much thinning out.

Celery.—This must be sown in a warm situation if in the open garden, but a better plan is to sow at first under a hand-glass or in a frame, pricking your young plants out later on.

Spinach.—This can be sown in drills or broadcast, but in drills is the better plan. Have your drills a foot apart, and see that you sow quite thinly, as you must recollect that you have by-and-by to thin out to some six inches apart. And why also need this thinning-out process involve some waste? for if you have been thoroughly cautious in sowing thinly, there will be not only less seed used, but less thinning-out afterwards to do; if, on the other hand, you have sown too thickly, the crop will grow so thickly that a very early thinning will be necessary, when the plants will be too small for kitchen use; whereas spinach thinned when the plants have gained a fairly respectable size can all be used in the kitchen and sent to table.

But our sowing just now is certainly not confined to the kitchen garden. All the round of hardy annuals may be sown this month in the open flower garden. We adverted just now to the peculiarities of the summer of 1888; many of us must have also noticed the effect of that strange season on even our hardy annuals-such, for example, as our sweet peas. In a hot and dry summer these lovely and favourite flowers have generally but a short life of it, as once in bloom, and if exposed to a long and hot day's sun, the petals soon become bleached and withered. In July, 1888, owing to the absence of all sun and plenty of rain, the writer noticed very few blooms on one favourite row; but in the genial warmth of the following October the whole bed was in the perfection of flower: in fact, between three and four months later than the usual blooming time. Such is our English climate. To be fore-warned, however, is to be fore-armed; and now, as we are just entering on a period that often oscillates between winter and summer in the same fortnight, we shall do well to prepare, as far as we can, for all emergencies.

THE CHOICE MATRIMONIAL.

BY THE AUTHOR OF "HOW TO BE HAPPY THOUGH MARRIED."



O choose a life-partner well is one of the most difficult and most important things in life. "O me! the word 'choose'!" for many young people cannot choose whom they would or refuse whom they dislike, or do not much care about, unless they are content to remain

all their lives in the unnatural condition of celibacy. "Mrs. Grundy" is a very exclusive old lady, and our social conditions are of such a cast-iron condition that it is impossible to marry out of the set or clique in which we live. The consequence is that each young

man and young woman has practically only two or three to choose from. This, of course, hinders the operation of the natural law of the marriage of the fittest.

But suppose young people have the opportunity of choosing, on what principle should they make their choice? The idea of the great electrician Edison's marrying was first suggested by an intimate friend, who made the point that he needed a mistress to preside over his large house, which was being managed by a housekeeper and several servants. Although a very shy man, he seemed pleased with the proposition, and timidly inquired whom he should marry. The friend somewhat testily replied, "Any one," thinking

and imprisonment, so that when the sack is re-opened a large number of the black ants are found dead.

When the Ameiser has got a supply, then he seeks a solitary nook in a forest where he may let the ants run away. He may not do this on an alp, or near a cottage or pasture, because the escaped ants injure the grass, and overrun a human habitation. So he takes care to select a spot far from the haunts of men, and also dry, and otherwise suitable for the habitation of ants, for those allowed to escape he reckons will colonise where they are discharged, and in two years' time have formed a flourishing community.

Moreover, the release of the ants is always made in hot sunshine, so that the little creatures may take readily to the new locality, but also, of course, that there may be plenty of light thrown on them, lest they should skip off carrying pupæ with them. A sheet is spread on the ground, and the Ameiser has ready a vessel in which to measure the amount of eggs obtained. He has generally a good number of assistants, for those who suffer from weak chests believe that to inhale the fragrance that issues from the opened sack prevents decline. In collecting the eggs a good deal of sweet gum is also turned out from the swarms, the resinous droppings of the pines that the ants collect either for food, or to keep their habitations healthy and fragrant.

The sack is opened over the sheet, and what a scampering there is! Out the ants pour, red and black, with eggs and gum and fir-spines, and the poor little insects, seeing the green grass, rush over the white linen to reach it, and yet, conscientiously, do not like to desert the eggs. Sometimes, in the first transport of delight at their release, off they go, unburdened, then halt, hesitate, and turn back in quest of an egg. Each ant seizes a pupa, the nearest to her; a red ant staggers along hugging a great black ant pupa, and a great black ant scampers off slightly impeded with the smaller egg of her red sister and persecutor. The red ants are always the most expeditious, and would get away before the others, but that the Ameiser sits keeping watch on the frontiers of the sheet, and arrests those who are carrying off the white seed-like pupæ. He takes these, and fills his measures with them, till all the eggs are collected, clear of the ants, and then the little creatures, after running hither and thither in search of more pupæ, and finding none. desert the sheet, and find for themselves a home in the new district, where, as already said, they will in two years have formed a flourishing colony.

The eggs are sent to town, and sold in the market as food for singing-birds, and the grains of fragrant gums also are disposed of. Nightingales are specially supposed to delight in ant-eggs. In England we give them to pheasants.

There is another way of separating the ants from the pupæ, and that is to make a hole in the ground, well shaded, and to put twigs over it, and leading into it. Then the ants rush off with the eggs, and drop them or deposit them in the shade of this hole, and run back for more, and so by degrees fill the hole with eggs, when the Ameiser clears the pit out into his measuring-bowls, and leaves the poor little insects to consider about building again. As is well known, the ant-workers are devoted to the care of these helpless babies, and carry them about in the hills, according to the temperature, to the top to get warm when the sun shines, down into the deeper galleries when the nights are cold.

In Germany there are ant-baths, but these are supplied, not from the pupæ, but from the actual ants. The baths are hot, and the formic acid from the ants, strongly diluted, is supposed to have a good effect on the skin in certain cutaneous disorders.

Formic acid is what occurs in the sting-nettle, and is also found in decaying pine-wood through the oxidation of oil of turpentine. It was formerly made from ants, but can now be manufactured chemically with greater cheapness. On account of its readiness to reduce the oxides of superior metals, it is used in photography, in the place of pyrogallic acid.

Formic spirit is made by the distillation of ten parts of ants, fifteen parts of spirit, and fifteen of water. It is generally manufactured by pouring spirits on a number of wretched ants in a bottle, and is used for skin application, as an irritant.

S. BARING-GOULD.

ORCHIDS, AND HOW TO GROW THEM.

THE GARDEN IN APRIL.

HILE we are basking in the spring sunshine and luxuriating in the prospect of another fast-approaching summer, we amateur gardeners naturally find ourselves, more especially at this season of the year, devoting our attention for awhile to one or another favourite class of flower, and perhaps resolving to cultivate it with a little more persevering care.

And this little common-place observation is yet further suggestive of a resolution to take up some branch of gardening that *does* require a little more than ordinary care. Still it is a very erroneous idea to get into our head that our old and familiar friends can any of them thrive properly if left entirely to shift for themselves. Gardens so treated are, however, occasionally to be seen, but their very wilderness and overgrown appearance at once tells us that they are under the indifferent care of a half-hearted or idle gardener. On the other hand, there is, of course, no gainsaying the fact that the dear old homely currant and gooseberry bushes do require less attention than that wonderful orchidaceous tribe about which we are



ourselves an orchid-house. Just now, however, we hinted at the sub-division of a good-sized greenhouse as a kind of make-shift for the culture of orchids, so that here we ought to state that for their effective cultivation two houses are really necessary, as some, more particularly those that we will call our East Indian collection, require a hot moist atmosphere, that would be unsuited to others of the Cattleya or South American tribe. Indeed, others there are that require a house cooler than either of these, and a temperature more perhaps that of our ordinarily well-cared-for greenhouse, so that we may even say three classes of houses are necessary for any great variety in our orchid cultivation. Or shall we put it that if our whole collection is grown in one house, a mean temperature of about 63 to 68 degrees must be maintained, and where there are two houses the warmer should stand at some 70 and the cooler at 60 degrees.

purposing to say a few words this month, before giving a few general hints for April duties that we also cannot afford to pass by altogether.

Now those of us who have gone to the expense of an ordinary greenhouse of a fairly good size might surely, if interested in the cultivation of orchids, contrive perhaps at some little additional expense, either by way of enlargement or by partition, to set apart some portion in which to maintain the necessary temperature for the growth of the rarer and more delicate species.

Here then, at the outset, let us sketch for



Reverting, then, to the structure of our orchid-house, one with a roof falling east and west is most advisable. The benches, or rather stages, for our plants, should be of slate, supported at proper intervals by iron columns. Underneath our stages should come our hot-water pipes, and these pipes should be laid in tanks, the tanks themselves containing water an inch or more over the pipes, and having also covers that we can place upon them or remove at pleasure for the purpose either of excluding or admitting steam, a luxuriant, damp, and hot atmosphere being that in which orchids of a certain class, and in their natural state, flourish best.

It will, however, be hardly necessary for us to enter elaborately into the details of the fittings necessary for an orchid-house. A mignonette-box, or even a cucumber-frame, our own ingenuity can very often supply, and a very pleasant occupation is it to be, where we can, our own carpenter, but hot-water fittings will certainly necessitate professional aid.

Next a word should be said as to the soil, &c., best adapted for orchids that we are rearing, whether in pots or baskets: some growers supply the uppermost sods from a turf-bog, mixing with this pieces of broken charcoal; others advocate a mixture of sphagnumthat is, bog-moss-chopped small, mixed with some little lumps of decayed willow or poplar wood, having at the bottom of all some more sphagnum. And we should add that although nearly every species of orchid delights in plenty of warm moisture, more particularly at certain periods of the year, still they will never thrive unless properly drained, or if water be allowed to remain or grow stagnant about the roots. Have, then, a good supply of potsherds or charcoal in your pots, and for a few days previous to re-potting withhold water from your plant. Shallow and wide pots are best adapted for orchids.

When you are potting, do not place your plant deep in the pot, but keep it above the rim, and indeed upon the surface of the material it is growing upon. To secure your plant in its position you can either tie it to a stick made fast in the pot, or have a few pegs all around to prevent it slipping about: some orchids, indeed, are grown on mere blocks of wood, and these, when suspended by wire from the top of your greenhouse, have a very pretty effect, only take care that when so suspended they do not drip on to any other . plant below. In order, therefore, to avoid this, hang them so as to be immediately over your head as you walk through your house; the best blocks to use are blocks from the cork-tree with the bark attached.

As your plants make growth they will require syringing perhaps twice a day, but not with any violence, and, of course, with water that is of the same temperature as the house.

Nor must we, before leaving the subject of the orchid, forget that the possession of ever so small a house in which we can maintain a great heat enablesus also to rear or force on many other plants which we can afterwards transfer to our greenhouse.

April, however, must not pass by without our noting a few general but important operations. A good gardener should never show favouritism in his garden, but impart his care and attention equally to all the flowers he is growing. By the end of the month we should try and relieve our greenhouse of some of the hardiest of its stock, by way, that is, of hardening off such plants as the calceolaria previous to bedding out in May. Bulbs, too, that have done blooming may be lifted, but it is safest to let their foliage die down first of all, while, of course, to cut it off is fatal to your bulb forthwith.

Very busy also are we this month in the kitchen garden, continuing our hoeing among the young crops, sowing our beetroot and our fortnightly peas, while the strawberry runners must most certainly be removed if we would have a good and large crop of fruit.

WHY LINGERS HE?

TWO SONNETS.

I. HE stands within the doorway of Love's bower Inviting Love to enter. The wind blows The wilding coils of clematis and rose About her neck-with every sudden shower She dreams of kisses. Jewel nor yet flower Adorns her dress. Calm her expression shows, Yet if her watchful eyes an instant close, In her impatient heart flies past an hour. Hark! 'tis a footfall: lo, the crimson dye Hath left the sunset, mounting to her cheek; She cannot hide her joy, she cannot speak .-'Tis but some wandering pedlar trudging by. The footfall dies. Again more wistfully

Her longing eyes the far horizon seek.

II.

"Why lingers he? The hour of tryst is past; What can delay his steps when love doth wait?" O love, my love, to-day thou comest late! Already down the field the tall firs cast Their twice-tall shadows, and the clouds are massed Around the dying sun; to seek his mate The lark has dropped, and thro' the eastern gate: The pale moon enters : hither, love, hie fast." The watch she holds beside her heart all day Hath lain and timed its beat thereto: wherefore She deems him late who cometh as of yore. 'Gainst terrors strange she seems at times to pray; Anon she smiles the foolish fears away, And gazes down the garden as before.

WILL FOSTER-

THE GARDEN IN MAY.



May, is upon us once more; yet its popularity cannot be gainsaid. Perhaps the greatest charm about it lies in the fact that it seems to say to us daily, "The winter is past." But is the winter past? Snow-balling and skating are undoubtedly past, but though we are now, it may be, playing tennis under a cloudless sky, we dare not yet sit down in the open when the "set" is over and let a biting

east wind scrape our face. Such a rash experiment would certainly lay us up, and might even end in laying us low. Or, take another view of the month of May. Get out of bed about four o'clock in the morning. It may be quite a cloudless sky, and the cuckoo has been "hard at it" for the last hour; but look out of the window at that corner of the lawn that the sun has not yet found out, and it is grim winter "scotched but not killed," for there you see the ghost of January still skulking about, and throwing a white shroud over the green grass. Perhaps you get into bed again, not a little alarmed about the geraniums just bedded out, and almost in a panic at the thought, "Did I forget to shut the cucumberframe yesterday?" You run out after breakfast; of course, the ghost has gone then. The cucumber-frame was shut, for the gardener says he opened it this morning at seven. That is a relief, certainly; but you go to your flower-beds, and find that your plants have nothing like recovered from the shock they received when they saw the ghost at 4.30 a.m. Why, fright has turned some of them actually black in some places. But what will our readers say to the following extract from a northern English parish register: - "June 9, 1814. Ice a shilling thick!"

While, however, the deceitful beauty of the month of May not infrequently tempts us to dub it as "Sir Flatterer," we must not, on the other hand, take too gloomy a view of our subject, and in a fit of ill-humour call May a winter month. Already we have hinted at the effect on our bedding-out stock caused by a white frost; and it is certainly true that a premature bedding-out, say in the first week of May, of any but the very hardiest of our flowers, might, in the event of an unusually cold night succeeding, result in the serious damage, if not destruction, of our plants. These spring and early summer frosts are the more to be dreaded after a mild winter. January and February with little frost or snow, sometimes finds us with an "unnatural" spring-as we illogically call it-in the month of March, followed by a little winter of destruction in April. One consolation, however, we have in the fact that most of our perennial stock of plants that stand out in the open all the year round, and on which much of the old-fashioned beauty of many of our gardens depends, must be, and certainly are by this time accustomed to the vagaries of our English climate.

A May frost very often - to borrow once again from the great master-" scotches," but does "not kill" our flowers. We shall find, perhaps, a few of the larger leaves of our geraniums blackened by early bedding-out, and it may be a little head of flower similarly touched. These will probably drop, but a few warmer nights and genial showers will rapidly advance your stock. The evident moral of all this is, of course, "Do not be in too great a hurry to bed out;" at all events, be careful to have a hardening-off process carried out. This, of course, gives a little more trouble; but it is certainly better to have a second wheeling and carrying of plants rather than to have a number of bald places on your beds, or to allow June to be well advanced, finding you with flowers of uneven growth and height. To harden off, take a few dozen plants from the greenhouse and stand them on boards along your gravel walk in a warm aspect, protecting them at night for a week or so with gauze or some such protection; or, if you prefer it, wheel your whole stock to some light shed and stand them on the ground, leaving the door open all night. The only objection to this last resort is, perhaps, that your plants, while in the shed, will never, or hardly at all, see the sun. Then, again, the delay in bedding-out is often amply made up to us by the delightful show of late spring flowers.

The end of April often hardly finds our hyacinths quite over, at all events in a late season; while the tulips will, in many places, be in full bloom. And next there are our beautiful pansies, which, in the absence of strong winds, will flourish better in the month of May than under the fiercer suns of the later summer months. A garden can, for a large portion of the early summer, be made to look very attractive almost by these flowers alone, so that a word or two about them just now may be said with advantage. First, as to the soil. A fairly rich soil is best adapted for the growth of the pansy; do not give too strong manure, but some decayed, and taken, perhaps, from some spent cucumber or other frame would answer very well. Some decayed turfs that you have allowed to rot in a heap will give you the best loam. With this as one half of your compost, mix for the other half, equal proportions of turfy peat and thoroughly decayed horse-dung. Such a compound will do admirably for the growth of pansies in pots; but to form beds of them in the open, scatter three inches in depth all over your bed some leaf-mould and decayed manure, forking the whole well together with double that depth of your subsoil. As your plants progress keep them gently earthed up. This will enable you to obtain side shoots to propagate from, which are far better than those taken from the top, as the side shoots you will find disposed



things are frozen. Before Mount Erebus lies Cape Crozier, and round Cape Crozier, Ross hoped to find a way to the westward, so as to reach the magnetic pole by the back of the new land he had found. But as they approached they saw stretching from Cape Crozier "as far as the eye could discern to the eastward," a "low white line," the nature of which they did not understand till they came close enough to see the truth with their eyes. It was a wall of ice a hundred and fifty feet high, without break or slope, but one glittering perpendicular steep, through which, as Ross said, one might as easily pass as through the cliffs of Dover. Along this gleaming rampart Ross ran eastward for 250 miles, and in the succeeding year, 1842, for 200 more without coming to its end, on both of which occasions he reached the high latitude of 78° south, which has never since been approached by any man.

Such is the famous barrier of perpetual ice which guards, and perhaps will ever guard, the secrets of the great southern continent. Only in one place was it possible for those on the mastheads to see what was on the top of it, and the surface appeared to be "an immense plain of frosted silver." That anywhere behind it there may lie an ice-free land with vegetation upon it, such as Nordenskiöld sought vainly in Greenland, but such as Greely's party did actually find in Grinnell Land, it is easier to hope than to believe.

Ross had discovered the Antarctic Continent, in which men still believe, and it remained for him to disprove the existence of that in which they had then begun to believe. After leaving the barrier for the first time, he sailed westwards till he saw Balleny's Islands, and then, with Wilkes's chart before him, he looked ahead to catch sight of Wilkes's land. But, though officers and men crowded into the mastheads

of the *Erebus* and *Terror* tney could see nothing, and when they had crossed the place of the ice-barrier described in the chart and were sailing along the mountain-chain, they understood that there was nothing to see. Thirty years later the *Challenger*, during her famous cruise round the world, ran up to within a few miles of where the further or western end of Wilkes's land should be, but her crew saw no land nor any trace thereof. "Termination Land" therefore disappears from the map, as a false creation of clouds and fog-banks.

Space does not allow a description of Ross's further adventures, of the collision between his ships in a sea of heaving ice, or of the perilous passage of the *Erebus* between two huge meeting icebergs, like the Wandering Rocks of the old Greek legend. It must suffice to say that, circumnavigating the globe, he found yet more land to the south of Cape Horn, where some had been seen and named by French explorers before; but this land lies not much beyond the Antarctic Circle, and its full extent is unknown.

For though this "Graham's Land" was visited by a German vessel some years ago, it does not appear that since the days of Ross any new discovery in Antarctic regions has been made. "No man has ever wintered there," no one has carried on the researches into the earth's magnetism which Ross then made. The Australian Committee has ascertained that the whalers and sealers of the Antarctic never venture into high latitudes, fearing the rough seas and fields of ice. But the Australians, as is natural, look with the more interest towards that unknown country, where the Glacial epoch still reigns, the home of the cold wind and the icebergs, which an Australian poet calls—

"The white south land Alone with God and silence."

E. J. WEBB.

THE GARDEN IN JUNE.



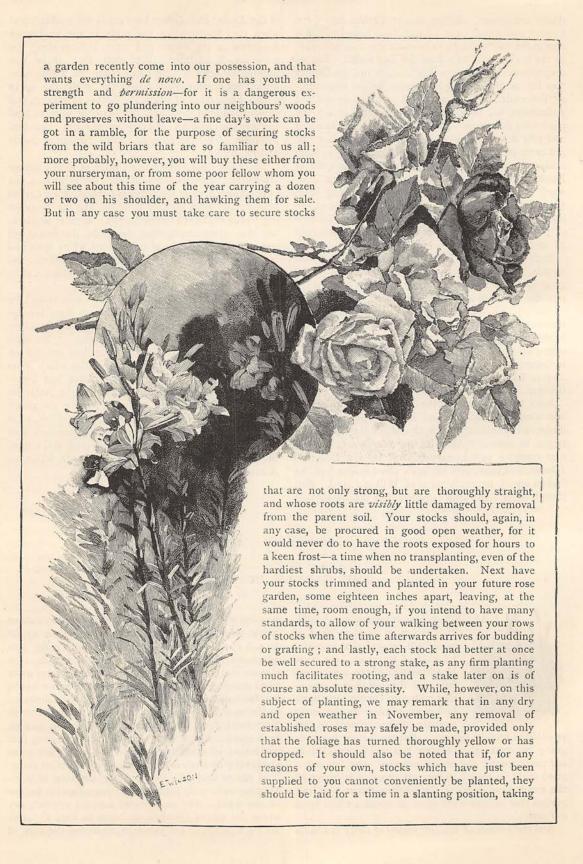
GARDEN in June is naturally a delight.

If it is not in its glory then, it never will be, and that wonderful whiff of fragrance—the combined product of the new-mown hay and the full-blown rose—that rushes in through our open bed-room window in the early morning makes it next to im-

possible to remain indoors. But we are not just now going hay-making, or we are too much occupied in our rose garden; and of our roses we must first say a good deal this month, before we can pay attention to the numberless items in the kitchen, flower, and fruit garden that in June have quite as great a claim upon our care.

And the subject of the cultivation of roses is a wide

one—so wide a one that into elaborate detail we cannot afford to enter. To begin then at the beginning, let us talk of the soil first. A good deep loam is the best adapted for rose-growing, and plenty of well-decayed manure dug in about November is a necessity, while good drainage is certainly another. The writer has in his memory now a lovely rose garden, well sheltered on the north and north-west by a small avenue of trees, but catching all the early morning sun, and looking both south and south-east. Let us say in passing that protection afforded by trees is one thing, but overshadowing by trees is another and a disastrous thing. The plants that will thrive under the drip of overhanging trees could probably be counted on the fingers of one hand. And in the wild autumn weather, say about the end of October, we begin to look about us for stocks-for we are just now supposing the case of



care, however, that the roots are well covered with mould. But, probably, our rose hints will be more useful if we follow up our observations by giving those which each month in the year consecutively calls for.

December and January are mostly periods of rest for our roses; perhaps the only thing necessary then is to attend well to the security, more especially of oldestablished roses. These often have long straggling branches that sway about in the wind, and in a gale are likely to break off and damage your standard. Where, then, very large growth has been made, the longer branches had better, in open weather, be a little shortened, though not yet pruned. February we may perhaps pass by, but March in the rose garden is a busy month. In March, the general pruning is given to all our roses, and this operation requires some little judgment; get off first the thin and what we may call spindly branches, and then prune, having some regard to the form you wish your standard to take. The further back you cut, the stronger will come the shoots afterwards; yet it is not advisable, perhaps, to prune too closely. And in March, the first spring month of the year, you will have to watch closely any buds that will begin to break out in all directions along your stock; these, as they appear, must be carefully rubbed off. And next you will notice sprouting up, at and round the base of your stock, some healthy and vigorously-growing shoots, called suckers; these must be at once grubbed up by the root, as they and the constantly pushing growth along your stock will exhaust the buds which you so carefully inserted in the preceding summer, and of which process we must presently speak. The way to get a sucker properly off is first to gently remove the earth down to the spot where it joins the root, and then and there cut it off close, and at once replace the soil.

And next, by the end of this present month of June, and indeed for the next two months, the interesting process of budding may be carried on. This, let us say, is best done in the evening of the day, in thundery weather, rather than in those long, cloudless, hot days, but never under a boiling-hot sun. First, it is best to go to some nurseryman, and then make your selection of buds. At the base of the leaf is a small bud, which, upon the fall of the leaf, would eventually become a branch. Now, by taking a leaf off with part of the bark, this little bud comes with it; and by inserting this bark under the bark of our wild stock, a union is formed, and the choice rose that you saw at the nurseryman's will in time thus make its appearance on your stock. You will know if your stock is fit to bud upon by ascertaining if the bark is easily raised with your budding-knife, and this, by the end of June or early in July, in a favourable season, is always the case. With your knife make an incision in the branch on which you are about to bud, and in the form of a cross, merely cutting through the bark only; then, with the ivory or thin wood handle of your buddingknife, gently raise the bark on either side; next, shave out of the little bud in your hand a very thin piece of the wood, beginning half an inch below the leaf, and taking your knife along to come out half an inch above the leaf. Then you insert the bud under the raised bark, taking care that the leaf, which is where the bud is, comes exactly where the cross-cut is, and next tie carefully round with worsted so as to secure the bud in its place, leaving only the leaf and bud exposed, bringing the worsted round several times. A small bunch of damp moss tied round afterwards is a good plan in a warm season, as the bud would, in great heat, or in the absence of moisture, be necessarily burnt up.

"NOBLESSE OBLIGE."

A STORY IN THREE CHAPTERS.

CHAPTER THE FIRST.

HALL I wear it, or not?" said Doris Carew.

She was standing in her dressing-room, and in her hand was a plain gold bracelet, on which was engraved the motto "Noblesse oblige." It was

Doris's twenty-first birthday, and the bracelet had come that morning, amongst the numerous gifts that were making her dressing-table look rather like a stall at a fancy fair.

"Shall I wear it?" she repeated, a little doubtfully, and then her lips relaxed into a smile. "How extravagant it was of him to buy it! but I suppose the motto tempted him. I wonder if he remembered the night when we were all choosing mottoes, and he and I both fixed on that? I wonder——"

"Doris," said Lady Carew, now coming into her daughter's room, "are you not ready? There are carriages coming up the drive, and Sir Philip Chisholm has been here nearly half an hour."

"But that is his own fault, if he chose to come before the time," said Doris, with unanswerable logic.

She clasped the bracelet on her arm, and followed her mother downstairs, and out into the garden, where the freshly-marked tennis-courts shone in the afternoon sun, and Sir Philip Chisholm, a tall, soldierly man, with iron-grey hair and a keen, bronzed face, was walking rather disconsolately by Lord Carew's side.

Another man was there also, a young lieutenant, whose face brightened at the sight of Doris, and then with a little return of colour to her cheeks, "I have also had an uncomfortable letter from home; mother is by no means as strong as I could wish."

"Poor child!" said Helen. "I knew that it was your spirit that was wearied. That kind of look does not come into a young girl's eyes just from bodily fatigue. Was there any other bad news in the letter, Emmy?"

"No," said Emmy, flushing hotly now, "but there was a false report, and those things are always disagreeable to listen to."

"A false report of your lover, dear?"

"Yes, but I would rather not tell it, please."

"You certainly shall not tell it; slander, when not repeated, quickly dies a natural death. You love Captain Redfern very much, don't you, Emmy?"

"Love him?" said Emmy, her eyes dilating. "Love him? Do I love the air I breathe? He is necessary to me; he is my life."

"Poor child! And you think you can fight your way in the world with a soft heart of that kind?"

"Helen! I think my heart is strong; it makes one's heart strong to love unselfishly."

Helen Channing sighed. After a pause of a moment or two, she said abruptly—

"You must gang your own gait, Emmy, and you may be right, and I wrong. Only it seems to me that a woman who has a mission, and means to put herself forward in the band of workers, and be a kind of beacon for other women to follow in the noble paths of independence, is better off without this all-absorbing affection; in short, she is better off unmarried. Dorothea and I don't intend ever to marry."

"Has Dorothea said so?" asked Emmy in great surprise.

"Many times; her art is her passion. Dorothea has great genius, and genius such as hers is all-sufficing. Emmy, I want you to do something for me when I am away."

"That I will, Helen, and most gladly. What can I do?"

"Take a great interest in Dolly's work, talk to her about it; make a point each day of inquiring how she spent the day; what particular drawing she is engaged in; and if her idle fits come, for she is a capricious creature, and sometimes will scarcely work for days, try, if possible, to idle with her. Go with her into the parks, or Kensington Gardens, and let her talk out her heart to you. The reaction will soon set in, and she will return to her work with double zeal; but I have always found it necessary to let the idle fits have their way, and always, every day, to give her large sympathy. Dorothea is almost exacting in her craving for sympathy."

"She shall have mine," said Emmy. "I can easily give it, for I love her well."

Then the two girls went out, and Helen, busy as she was, took steps to procure Emmy's ticket of admission to the Reading-Room at the British Museum. Emmy felt, more or less, in a dream all day, and now and then Helen's theories would recur to her with a dull sense of pain and wonder.

"Will that beautiful and gifted Dorothea always remain faithful to the cold and lonely life laid down for her by her sister?"

A week afterwards Helen sailed for America, and Emmy and Dolly found themselves very much alone, and quite unprepared for a train of circumstances which would soon alter their lives.

END OF CHAPTER THE TENTH.

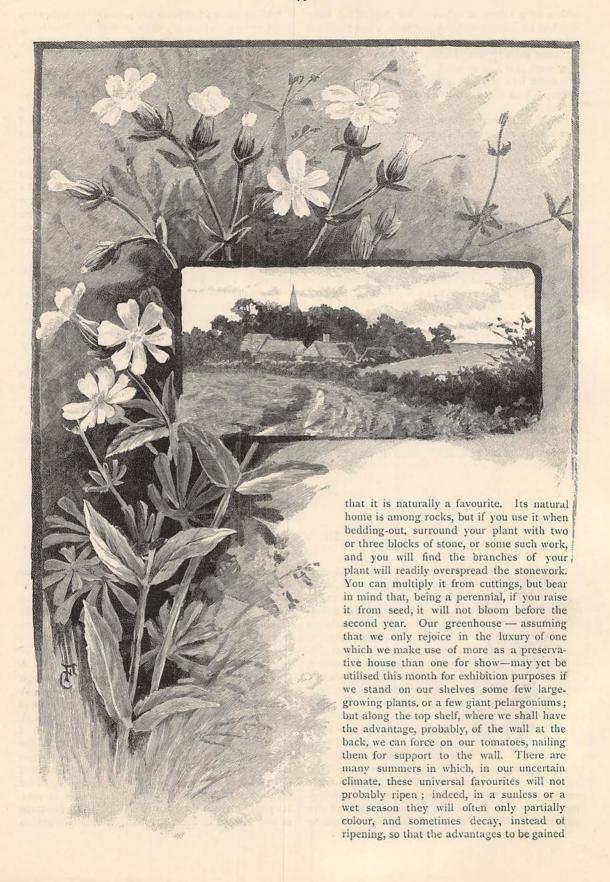
THE GARDEN IN THE SULTRY MONTH.



the months of June and July are those, perhaps, in which, more than any other, true lovers of the garden enjoy their labour in it. For already they begin to see in all directions the fruits of their labour; the flower garden is all a-blaze with colour, and so in a more substantial and practical way is the fruit garden. A month in which results are so general and so gratifying calls for a few hints in each department of the fruit, flower, and kitchen gardens.

And first of our flowers. In July we shall begin to notice the great advantages accruing from the triple combination of perennials, annuals, and our bedding-out plants; for here and there in a hot and dry season we shall begin to notice a failure or two whose

place requires filling up; a few successionally sown annuals we should have ready at hand for this purpose, sown in pots at intervals of every two or three weeks from the end of April, and kept in the background to supply the place of faded sweet peas, imperfectly developed flowers, or any that have given us dissatisfaction from the first. Biennials-such, for example, as sweet William-and perennials may well be sown in July, and as soon as they are large enough -say in three or four weeks after sowing—they may be planted out in the spots in which you wish them to remain; they will then readily acquire strength enough to bloom in the following season. And among our perennials, very much akin to one of the old friends of our English homestead, the ragged robin, and belonging, indeed, to the same natural order, is the Silene Schafta, admirably well adapted for planting on rock-work, or even for growing in pots. Its pretty bright rosy flowers are a pleasure for three or four months of the year, from June to October, so



by the dry heat of our greenhouses are at once apparent. Your camellias and azaleas will, by the end of June, have made their growth; they will be benefited now, therefore, by a removal from your greenhouse to any sheltered situation out of doors for a couple of months at least.

And in the kitchen garden one of our troubles this month is certainly the weeds. Not only our crops but our very garden paths want constant hoeing and clearing.

Our cabbage beds should also be attended to; have your ground prepared, and then sow for spring use towards the end of this month, while cabbage plants that you want for use in autumn and winter may now be planted out.

Cauliflowers, too, that you may, perhaps, have sown in May, may now be pricked out and set in a rich and warm border, and a little successional planting out of celery is admirable just now. The great fault and mistake in our domestic gardening is, for the most part, that thoughtless one of sowing everything at once; one great crop of peas, one great crop of beans, and so on. Many families could supply a boys' school with peas for a single week, but for the rest of

the summer could not find a dish for their own use. Successional sowing is the only remedy for this idle waste and extravagance. By the end of the month or in August the onion bed may be sown.

While, however, we can contrive to have several crops of one vegetable throughout the summer, by means of successional sowing, we have to be content with a single crop of our fruits, such as our strawberries, currants, and gooseberries, for which this is our harvest month. For preserving, choose a dry day for fruit-picking, and even then do not begin in the early morning. Fruit gathered for preserving which is not dry will only result in disaster. The strawberry crop, however, will go on bearing for some little time, and you will help the fruit-bearing properties of your plant by gathering some few at least as they ripen. And then we must have a word as to our cucumber and melon frames. A little clear manure-water, though very much diluted, helps to keep the bearing cucumber plants in vigour. Stop and regulate all shoots that are disposed to go ahead too much; they only tend to exhaust the plant, and will make it cease bearing earlier than would be otherwise the case; nor should you allow too many cucumbers to be ripening at once.

A DAY IN A PROOF-READER'S LIFE.



HAVE often thought of writing a description of my present course of life, a life so different from that in which I formerly had a share. After the perusal each of my readers will, no doubt, answer the first advertisement he sees for a proof-reader.

To begin with, night work of this kind cuts me off from

all social enjoyments, my work-time being other people's play-time, and vice versâ. The afternoon I have to myself, and this would be a great advantage were I strong enough to take a long walk every day: as it is, I have to stay in the house, and amuse myself as best I can, generally by a little light reading. I dare not read long, for fear of sore eyes; serious or hard reading would give me a headache, and spoil me for my long night's work. Once I tried to get a smattering of German, but found it altogether too much.

Six o'clock finds me ready for work. The composing-room is a large, rather low room, at the very top of the newspaper building, the roof-beams being its only architectural adornments. Half is occupied by the rows of tall wooden frames, on which the compositors place the cases of type they are using; the other half by the "stones"—in this case iron-covered tables—on which the type, when "set," is arranged in

columns and pages. The walls and ceiling (in this particular newspaper office of which I write) are whitewashed once a year or so, but the floor has never been washed since the place was built, and as the ventilation is imperfect, the atmosphere which greets one on going into the room on a warm summer evening may be imagined. At one side of the room is the overseer's raised desk; on the other side are the three little boxes for the readers, resembling Dutch ovens (and just as suitable for roasting us), and scarcely large enough to hold a desk and two people. Here I sit all night, with a blazing gas-jet a few inches from my head and the hot-water pipes at my feet, scarcely once leaving my box from six till half-past three. The only break is the supper half-hour, but the work slackens considerably after two o'clock, when the first edition has to be ready, to catch the early trains, and most of the compositors leave.

Most people know what correcting a proof is. But it is one thing now and then to correct a proof of something in which you take an interest, and quite another to be obliged to read proof after proof as fast as possible for hours together, the contents, whether advertisements or what is ironically termed "news," being quite uninteresting, and often disgusting. I have to contend with broken type, and badly-printed proofs—anything is good enough for the reader; I must mark every mistake of compositor, reporter, telegraph clerk, and editor, from the smallest "printer's error" up to mistakes in grammar and construction,

whisk all up until perfectly blended. Now take some tins of any shape or size desired, wipe the insides out very carefully, and then grease them lightly with butter which has been previously creamed. Freely dust fine sugar over the butter, fill the tins three-parts full of the sponge cake; dust the tops rather heavily with sugar, and bake in a warm oven until the cakes are of a delicate yellow colour.

A Word of Caution .- As a rule, the housewife is so anxious to have her cake done before it really is baked, that by frequent opening and closing of the oven door she lowers the temperature of the oven, and causes the cake to fall in its tin, and thus become "sad." Here then is a word of advice:-First be certain that the oven is of the desired temperature, and supplied with sufficient fuel to maintain that temperature for the time it is expected the cake will require for baking. When the time has elapsed and it is thought the cake is ready, look at it and judge somewhat by its colour, but at the same time push well into the middle of the cake through one of the cracks in the top of it a good stiff straw. Remove the straw immediately, and if anything sticks to it, the cake is not yet done, but if the straw comes away quite clean the cake is finished.

Rose Biscottines.

These are indeed a novelty, and if properly made, are far superior to the world-famous Shrewsbury cakes. For five o'clock tea they are a decided innovation, and

I claim for them the credit of being unique in every way because they are entirely of my own invention; and I sincerely hope those who would make these lovely little morsels to perfection will do me the credit of keeping exclusively to the proportions of the different ingredients I have given, and likewise will be careful that the biscottines are not over-baked, nor burnt in any way. Take—

r lb. Fine dry pastry flour, 8 oz. Castor sugar, 8 ,, Butter (fresh), \frac{1}{2} ,, Finely sifted biscuit powder, A hock-glass-full of rose water, Two ergs.

The flour and biscuit powder should be sifted together, and then the other ingredients well rubbed into them. The sugar should now be mixed thoroughly, and a space made in the centre of the lot, in which the eggs and rose water should be poured. Stir everything well together and produce a nice, firm, stiff paste. Roll this out into a sheet rather less than one-eighth of an inch thick, and then stamp the biscottines out of it with a small fluted-edged oval hand-cutter. Now lay these cakes on buttered baking-tins, put them in a warm oven, and keep them there till quite done.

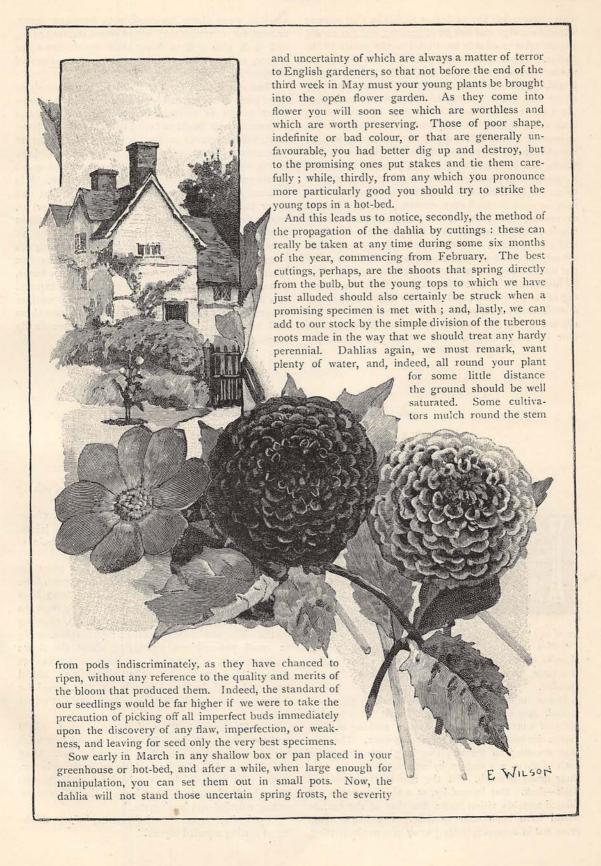
By rolling the above dough out to only the thickness of stout note-paper, and baking the biscottines very lightly indeed—only about twenty seconds in a good hot oven—the result will be beautiful wafers to take with ices.

THE GARDEN IN AUGUST.

HE rapidly advancing summer makes us the more careful to pay attention to those flowers that will, either by the gaiety of their colour or the persistency of their bloom, help us to preserve the idea that

it still is summer. Not that we are foolish enough to dispute the claim of August to be one of our most glorious summer months, but still, as August advances we find certain gay colouring in our beds which we look upon not with unmixed pleasure, simply because it is the herald of approaching autumn. Notably in this class is the dahlia, and something must be said about it; for not only is it gay in the month of August, but as late as October even, when our first frost has come, the dahlia, side by side with the chrysanthemum, not infrequently helps to keep up the idea, as we have just said, that it is summer still.

Now, to speak of the soil first, we note that the dahlia is what is called a coarse feeder, and to succeed we must have, therefore, a well-manured soil. A good trenching, then, on any bed in which we intend to grow a collection of dahlias would be advisable, so as to render the soil friable and easy of management. And next, as to the situation of our dahlia-bed : the flower-heads being of a brittle character and easily broken off, choose as far as possible some more sheltered spot for your plants. Why it was that our grandfathers despised the single dahlia we cannot tell. At all events, in the present day not a garden would be considered complete without plenty of specimens of the single kind, to which perhaps even more attention is now paid than to the double that fifty years ago was thought so much of. And then as to the propagation of the dahlia: this can be carried out, as in most other cases, either by seed or by cuttings. Your seed will, of course, have been taken from the pods of the best specimens of previous bloom, and for this purpose you should, when your dahlias were in flower, have marked those that you considered as the most perfect. This course is really the wisest, for much time and labour is often lost by taking seed



with manure, but the objection to this is that manure attracts earwigs and insects in general, and the earwig in particular is what is most fatal to the petals of the dahlia. Then again, when your plant is young and tender-perhaps soon after it is planted out in Mayit will, unless you take precautions, become the prev of the slug. A little circle of lime drawn round your plant will help to keep off the slug, but the earwig makes his attack on the flower itself, and as far as possible he must be trapped in the ordinary way, by reversed flower-pots or by any small piece of hollow tubing laid down in the vicinity of your plant. Lastly, it may be said that our dahlias are sometimes allowed to go on blooming too long, for reasons doubtless that we gave at the outset-namely, that they help us to prolong the summer. By October their beauty is gone, and those that were early in bloom will be still earlier faded. Now, the tuberous roots on which we rely for our next year's supply should have a fork put under them, so as to slightly disturb the whole by lifting them gently. This will facilitate the withering of the plant itself, and in a few days' time, or say a week afterwards, your plant may be taken up and cleared of the soil, and the stems cut down to some four inches in length. The tubers you should put away in some place inaccessible to frost, or damp, or heat, for otherwise they would either shrivel or rot; and it is also well to hang them upside-down for a time, so as to allow them to drain themselves of all moisture.

Thus much then for the dahlias; but what about other parts of the garden? It would require a volume every month to treat of everything as fully and elaborately as it ought to be treated of. We can here, then, but advert to a few of the most important operations. Foremost, perhaps, should be named the taking of our stock of cuttings from our bedding-out plants not later than the third week in August. It is well not to put the operation off too late, as we can never tell what sort of weather is in store for us, especially in the early wane of the year. Sometimes September is one of our loveliest months, but we never dare count upon it, and more particularly its latter half is an uncertain one. Cuttings when first taken should be stood out in the open in their boxes, pans, and pots, properly watered, and not exposed to a hot sun. Still, some warmth and genial weather is necessary for them at the outset, so as to have them well established and rooted before they are finally housed, about Michaelmas, for the winter.

MAN IN A MILLION.

TALE OF THE INDIAN OCEAN.

By GORDON STABLES, M.D., R.N.

CHAPTER THE FIRST.

"I'VE SET MY HEART ON HILDA."



EIGHO!" said John McGregor, shutting up a great dusty old ledger, and stowing it away on a bookshelf close to the table at which he had been writing for some time. "Heigho!" he said, stretching himself and yawning, "how time does fly, to be sure! My daughter will

be of age to-morrow, Clements."

"Will she now?" said Clements, a gaunt-looking, closely-shaven man of about fifty, who sat scribbling at a table, about two yards to the right of the first

It was indeed a strange room in which they were seated. Any one coming straight in out of the tropical glare of sunshine could have seen nothing at first, except the two figures of the men at work. The light that streamed in through one long open slit above each of them was caught by reflectors and cast upon their desks beneath. All the rest of the room was dark-dark. But by-and-by, as a visitor's pupils got dilated and his vision more like that of the bat, he would have been able to descry one black figure crouched in a corner, pulling away at a punkah-string,

and another tall black fellow busy at a table, mixing iced fruit drinks.

With the exception of the writing-tables and a huge safe on which stood a few sample bottles of juices, gum, and spices, there was not another article of furniture in the whole room.

But had the visitor remained in this room for fifteen minutes, then all his sun-blindness would have disappeared, and everything would then have been distinct enough. The great punkah, waving from the lofty roof; the horrid spiny geckho lizards, crawling up the walls, and stalking moths; cockroaches, as big as small pin-cushions, zigzagging about the floor; huge crickets, with feelers as long as penholders giving side-long digs at the nigger-boy's naked feet; and a daft-looking kitten in a corner, smacking a tame snake's head every time he popped it out of

"Ay, Clements, she'll be of age to-morrow. She'll be fifteen, sir; and, dear girl, she is so like now what her sainted mother was when I married her. Dear girl!" repeated McGregor, looking up at the reflector. in the rays from which his splendid beard gleamed like a bank of snow. "Dear lassie! she will soon be getting married and leaving me."

"By-the-by, partner," said Clements, "I am thinking of getting married myself."

THE GARDEN IN SEPTEMBER.



put it as gently as we can, la première jeunesse of the fair summer of 1889 has passed away. Yet it would argue neither more nor less than a disappointed spitefulness to say that her beauty has anything like fled; though we have no lilies of the valley and the tender green of the May evenings and of "leafy June" has passed away, still we are loaded with a super-abundance of the brightest flowers to

intertwine amongst her "bonny brown hair." The epergne on the centre of the dining-room table never, perhaps, looks so noble and so gay as in the month of September, and the maiden-hair fern, which is now in its very pride, largely contributes to its grace and effectiveness. Still, when a distant shot tells us that another partridge has succumbed, or when we meet the merry children on their way home from a long blackberrying ramble in Nature's garden, striving with little purpled tongues to mock the harsh cry of the cock-pheasant in the neighbouring wood, we have a touch of sadness at the thought that summer is going.

But what have we got to do in the garden in September? Work, and plenty of it; let us see. And, with propriety, we had better notice first those operations that will not any longer admit of delay. To one of these we only adverted last month, when talking about our dahlias that are still so gay in this, and that is the taking of our stock of cuttings. August is certainly the proper month for this, but in a good and summer-lingering season the early days of September will do, but if you put it off any longer you will run a good many risks of failure. When you have judiciously robbed your flower-beds of the little three-inch cuttings, and got them all in goodly rows in their boxes, pans, and pots, and given them a careful watering, keeping them in the shade, you still want a little bright summer weather in which, as it were, to start them. To expose your hopeful stock on the one hand to a scorching glare of the sun, or, on the other, to stand them out in nothing but the cheerless drip of an almost incipient winter, would be alike fatal to them. Hence the importance of "taking time by the forelock" in this matter of the cuttings, and not postponing attention to them later than the last week of August or the first few days of September.

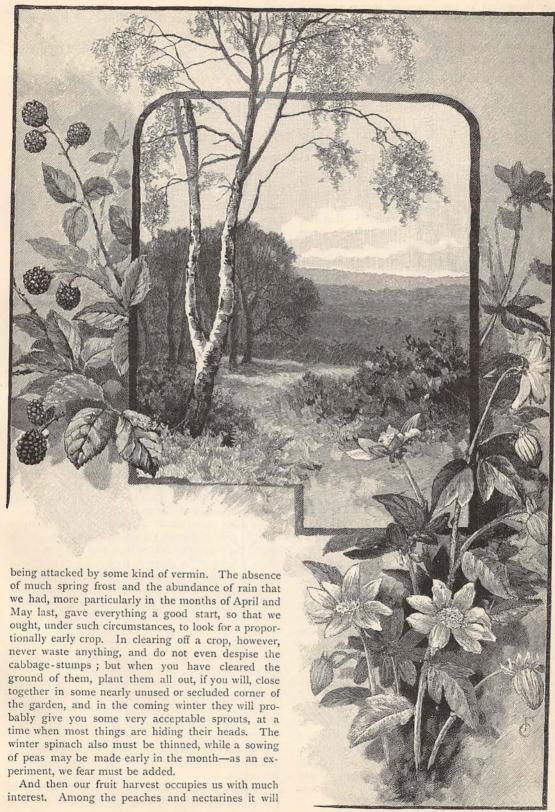
Now, if you have housed your cuttings already in the greenhouse, it is most important that you give them plenty of thorough ventilation. If you are frightened of air, and are too fond of shutting up your glass, you will find your cuttings getting weak and spindly, and in the autumn rains many will begin to wither and damp off altogether. Then again, sometimes you will notice that some few of your cuttings are disposed to suddenly run up, or that a little unnatural head of blossom is showing itself; pinch off all these little extravagances, which, if you were to allow them to remain on, would only weaken and exhaust your little plant, and perhaps finally destroy it. So long, however, as no actual frost is about, it is a wise plan to allow your whole stock of cuttings to stand out on boards or along a plank in the open garden. This will render them strong and more able to stand the winter. Moreover, if you house them too early in the season they will, under the influence of the increased warmth of the greenhouse, be disposed to grow unduly. At Michaelmas, then, or a little earlier, according to the state of the season, have your whole stock housed, together, it may be, with your camellias and azaleas.

Finally, on the subject of the cuttings, let me say, do not overstock yourself. This is an evil, and there is a strong temptation to fall into the mistake at this time and thus overcrowd the greenhouse, and take up room which should be otherwise appropriated by other varieties.

The experiment may be tried in the middle of the month of sowing annuals to stand over the winter, in the beds and borders; or you may sow them in a sheltered spot and afterwards plant them out elsewhere in the spring; yet you will find that if you are successful in getting any to stand the winter, they will flower both earlier and stronger in the places where they have been originally sown. Notice too, in passing along your flower garden, any seed that is ripening, where, at least, you have also noticed that the bloom has been particularly fine. In this case gather the seed in the pod, and put all aside in some thoroughly dry and airy place, where the seeds can quite perfect themselves. It is a mistake to take them out of the pod at this early stage, and it will be quite time enough to do so when in the following spring the time has come for sowing again.

Then, again, by the end of the month we should be thinking what bulbs will be necessary to put in, but perhaps October will be a more suitable time to speak of this; even November is not too late, provided only there is no actual frost about when we are setting them in. But a busy time we must have of it, both this month and the next, in the kitchen and fruit gardens, for the fruit harvest is extended over both, while we must have endless planting and winter preparation.

Then again, in our kitchen garden, there are a good many crops to clear off the ground, for we should never allow a used-up pea or bean crop to disfigure and exhaust the soil. Perhaps, too, we may notice that a potato crop has ripened early, and if this is decidedly the case, it is a mistake to allow the tubers to remain too long in the soil, as they run, more or less, a risk of



be noticed that they do not ripen all at the same time; gather them then as they ripen, for this is naturally often far more convenient for domestic purposes. King John, we must remember, it has been said, died of eating too many peaches at once, so let us take warning from him. The wasp and blue-bottle, how-

ever, seem to thrive by following his example, so it is well to leave one for them which they appear to single out for attack in preference to the rest. Sometimes this generosity helps to divert them from feasting upon those that remain. The insect question is certainly a difficulty in the garden.

HOW TO DRESS YOUR CHILDREN.

BY A MAIDEN AUNT.



I is a very true saying that "onlookers
see most of the
game" — therefore
it may be supposed
that people who
have no children of
their own are pretty
well able to criticise
the clo hing and
costumes of the
rising generation.
A maiden aunt is

constantly in the way of hearing discussions about the children's garments, and her opinion is, if not always accepted, at least often asked for. "Here is summer coming on, and I have no thin frocks ready for the children. What shall I get them? Do suggest something." Or "What shall I get the girls for Mrs. Friendly's party? I want something pretty and cheap. Fred complains dreadfully of how much I spend on the girls' gowns." These are questions often asked, and not so easily answered; children's dress, even where expense has not to be seriously considered, is an important thing, and they are often made quite unhappy by being unbecomingly, or, worse still, over-smartly dressed. Many a girl's pleasure, at her first party, is completely spoiled by an injudicious mother's way of dressing her; and many a boy's first term at school is made a misery to him from the same cause.

As to a schoolboy's clothing, however, I really do not feel at all competent to pronounce an opinion. Every one who has read Mrs. Ewing's tale of a "Flat Iron for a Farthing" will remember the amusing conversation which takes place between Reginald and his nurse, on his first return home from Eton, when she asks him what has become of "them brannew fine linen shirts of his," and "where them rubbishing cotton rags in his box have come from;" and he loftily replies that he has used the former "to clean Damer's lamp," and that the latter are the "correct thing." This shows that a boy's dress is a thing not to be lightly tampered with-the colour of a necktie, the shape of a hat, the depth of a collar, are matters far too abstruse to be entered upon here, and most mothers will find that on this subject they had better refrain from too much interference.

But the dress of a little boy still in the nursery is quite another thing. Here the maternal fancy may have full play. There are countless charming little suits for these urchins of tender years. The "Jack Tar," for instance, is one of the most popular just now; and though, to my thinking, it looks decidedly out of place in town, it is just the thing for the country or the seaside, where the small wearer may dabble in sea-water or bedaub himself with mud to his heart's content. There are also the Jersey suits, in navy blue, red, or white, with the "jelly-bag" cap of the same material; while for London wear, I think there is nothing prettier than the "Patience suit," in cloth, velvet, or plush, with either a Tam o' Shanter or a plain polo cap as head-gear. There seems to have been rather an attempt lately to revive the Highland kilt, but in cold weather it is decidedly out of place, and even dangerous, for a child to go about with semi-bare legs; besides, these said legs must be very bonny ones to look well in this kind of costume.

A midshipman's dress is charmingly piquant on a very little boy. In Kensington Gardens, not long ago, I saw two little fellows, who looked about six and seven years of age, dressed as two complete miniature midshipmen, "pin for pin alike"; the effect was very pretty, and it had all the merit of being uncommon.

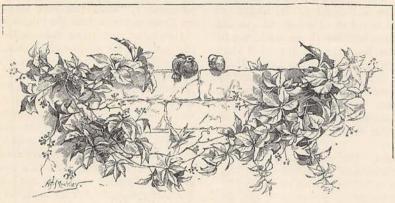
But place aux dames. As to materials and styles for little girls' costumes, the only difficulty is to choose among the many exquisite things that one sees everywhere. Some of the shops in Regent Street and Bond Street constantly exhibit the most ravishing little frocks in their windows, and these can be very easily and cheaply copied at home, it takes so very little material. One cannot do better than make a study of them.

As to colours for children's frocks, I think, as a rule, anything bright and pretty in itself may be worn by them; all young children have good complexions, and most of them are pretty. Bright red, so trying, and, as a rule, so conspicuous and unbecoming a colour on a grown-up person, is quite charming for a child's frock, worn with a "granny" bonnet in velvet or plush of the same bright shade.

Peacock-blue, moss-green, and mustard-colour are also effective and pretty shades for young children of both sexes.

Just now, the usual thing is to see tiny maidens from two to five dressed completely in white, dead white in

THE GARDEN IN OCTOBER.



OUR VIRGINIA CREEPER IN OCTOBER.

year we naturally look for a corresponding decline in much of the glory and beauty of the garden; but though it is not always summer, and we cannot go strawberrygathering in January, yet each season brings with it its own occupation and its own delights; while we must not forget that if in any one of the four seasons of the year we relax our efforts in the garden, we shall practically never have any summer at all, in so far as fruit and flowers are concerned. One thing, how-

ever, we will do at the out-

set; and that is, we will make

the most and the best of the

ITH the decline of the

flowers that remain; and this leads us to say something about our chrysanthemums, which ought to be now coming on in all their luxuriance. Now that they are about to expand their flowers, they ought to have as much air and light as possible, so as to enrich the clearness and brightness of the bloom. We are, of course, speaking of those that have been recently moved into our green-house. And most important for them just now is a systematic watering; an alternate watering with clear water one day, and a little weak manure-water on the next, helps to keep the foliage fresh and green.

For their general cultivation throughout the year, let us say, beginning with January and February, that after Christmas nearly every bloom will have disappeared, when the plants should be cut down to within some three inches of the pot itself; these chrysanthemum pots you can then place in pits, or plunge in the

earth, taking care to protect them with some dry loose litter; notice also whether the soil has at all wasted from your pot, in which case fill up with fresh compost; the soil, we should add, that is best adapted for the chrysanthemum is turfy loam and peat, while a little leaf-mould is also a good thing.

In March, some re-potting may be necessary. As you take the ball of earth from the pot, shake off a good deal of the old and spent soil, and use fresh soil and new drainage. In April you will find plenty of young shoots making their appearance, and some of these you can strike under a bell-glass. In May you can remove your plants to a sheltered and shady spot in the garden, where they will begin making their summer growth; while those that you struck the previous month may by the end of May want potting off: though these should afterwards remain for a while in a temperature similar to that in which they were originally struck, until at least they have recovered any check they sustained by the re-potting process. In June any very long shoots may be topped and struck, but, as a rule, the cuttings taken off in July and August make shorter and better plants. By September, or, at all events, by the end of it, the plants will have finished their growth, and will be indicating flower, when they can be removed to the places in which they are to bloom, and carefully watered as we originally directed. Those plants whose bloom is over in December can then be cut down; and thus we have in summary treated of our chrysanthemums for the round of the year.

And now to revert once again to the operations adapted to the present autumnal season, let us have something to say about our pits and frames. One green-house we may be supposed to have; but anything very extensive in the way of glass is not only a great expense to erect, but a great expense to keep up. Two or three good frames, however, are a considerable help to a poor gardener, and are comparatively inexpensive. In the wane of the year, the mere

protection of some old and unused frame will be sufficient to keep alive many of our bedding-out plants, or, at all events, the hardiest of them-such, for example, as our calceolarias. All that you have to do is to exclude frost, while you need give no heat. A little protection round the sides of your frame, and in severe weather some matting or some such material thrown over the glass of your frame, is all that is necessary. And again, early in March, and when the worst of the winter has passed away, an extra frame made up with the necessary quantity of manure will give you abundant heat in which to force and strike an endless variety of subjects for your garden; and, indeed, the frame which is destined to contain your melons and cucumbers can, particularly in the first instance, be largely utilised for seed pots, whether of flowers or vegetables. Three frames in a garden of an acre, if well economised, would give very satisfactory results. Then, again, another great use of a cucumber or melon frame, now of late become vacant,

is that mushrooms can easily be grown in it. Mushrooms, indeed, can be raised under the stage of the green-house, or even in a cellar. And further, a good supply of handglasses and bell-glasses, in addition to the frames, is another compensation for those persons who do not possess the luxury of a large green-house.

Something must surely be said this month of our fruit and vegetable garden. The orchard harvest will of itself occupy us largely this month; and here the first precaution necessary to give is a very old one, and that is relative to the way in which the fruit is gathered: all apples and pears that are accidentally shaken or knocked down should be put by

themselves, and not housed with the carefully gathered and unbruised fruit. The October peaches we usually harvest early in the month; they seldom ripen uniformly, so that the gathering of some that have ripened early will improve those that, perhaps for a week or so longer, are allowed to remain on. Then our vines that are in

the open ought by this time to be rapidly ripening. It is a mistake to pick off the leaves that grow in the vicinity of the bunches of grapes. That foliage is a distinct element in the nourishment of fruit is sufficiently evident from the fact that when the leaves are destroyed by the caterpillar—and the caterpillar, alas! has been reported as unusually destructive this year—the gooseberries and currants simply remain green, and refuse to ripen. Hence we see that leaves are useful as well as ornamental; but when they are blown

down in the October gales they are certainly far more useful than ornamental. Pigs and horses, and many a poor worn-out labourer, have found a bed of dry leaves a sort of luxury; leaves trodden down make fine manure; leaf-mould is a valuable compost; leaves we stack sometimes over our sea-kale pots and round our frames for their friendly warmth and protection. Who will say that leaves are of no good? But they are unsightly if allowed to waltz round and round on our garden path to the melancholy music of their own creation. Another heavy harvesting operation this month is on the potato-bed. Store them away out of the reach of damp and frost : this rule holds good whenever we speak, indeed, of storing anything away. And then the celery must needs be now and constantly earthed up. Very particular gardeners sometimes, before earthing up, tie each head of celery with bast matting, as if it was a lettuce, and untie it again when the earthing up is done. But this is hardly necessary in domestic gardening.



A NECESSARY TASK.

A kind yet firm manner is indispensable, as all roughness and sharpness is unpardonable in a nurse. Sick people are often irritating, and it needs much patience in nursing them; but patience should be considered a *sine quâ non*, for if people cannot help feeling tired they *can* help expressing their feelings.

Do not have any noisy occupations in the sick-room. If you have needlework, let it be noiseless, and avoid the clicking of knitting-needles-a sound small in itself, which, however, has the power of being very annoying to a sick person. In some cases of brain disease every noise is a cause of great pain, and care should be taken to avoid it. A fire is generally a noisy part of the arrangements of a sick-room. This is not by any means necessary, as it can easily be kept up or made very noiselessly. A pair of housemaid's gloves should be kept near the fire-place, and the coal put on with the fingers. It is always best to have the coals for the sick-room selected in knobs, and these can easily be placed on the fire, and, if the afore-named gloves are used, without soiling the fingers. Or else the coal can be placed on the fire by using those small tongs which cost so little, can easily be purchased at any ironmonger's, and which are most useful. For keeping up a fire in cases of severe illness, where it is advisable even to use greater caution to avoid noise, and also for replenishing it at night, it is a good plan to have a coal-scuttle made up the last thing at night, filled with little packets of coal made up in thin paper. These, even without gloves, can easily be laid on the fire, and as the paper burns at once, the coals go on without any noise.

Do not neglect the personal cleanliness of your patient. A warm bath should be given once a week, unless the doctor orders to the contrary; the feet should be washed twice a week or more, and the face and hands, back and shoulders, every day. Most scrupulous cleanliness is absolutely necessary for everyone who has the least desire to live in obedience to the laws of health, and to keep perfectly clean all parts of the body that press heavily on the bed is to avoid bed-sores.

Do not imagine that burning pastilles or scented paper dissipates an unpleasant odour or purifies the air. They merely cover the odour, and do not purify the air. Fire and fresh air do the latter; and besides these, in a sick-room, it is well to place open dishes containing Condy's fluid and water about the room, and all vessels in use should have a little kept in them. Condy's fluid is invaluable in illness; and my last advice to you is—do not be without it.

THE GARDEN IN NOVEMBER.

F all the twelve months in the year, the month of November has the dreariest ring about it. We associate it with fogs and with days that are growing shorter and darker, and popularly speaking there is something just now almost grotesque in the invitation: "Let us come and take a turn in the garden." Nevertheless, that is just what we are going to do. It is sufficiently commonplace to observe that, if we utterly neglect the garden for any one month in the year, we shall incur the risk of having a sort of November garden all the year round.

Well, and on the supposition that it is a cheerless morning, we will go at once into the greenhouse, where perhaps the little surroundings of an artificial summer may give a fillip to our spirits. From now until February is the great period of rest for our plants: they are, as it were, in bed and asleep. Now, if we were asked what is the primary object of having a greenhouse at all, we should unhesitatingly reply, it is merely a building to exclude the frost entirely, and one in which we preserve our plants during the cold season.

A very different thing this from a hotbed or a forcing-house. And yet in ordinary and domestic gardening the mistake is not infrequently made that a greenhouse is a building which must always be kept at an August temperature. So then let us say, at this time of the year, in the greenhouse much depends upon the weather, but as far as possible avoid giving artificial heat. Even during a period of intense frost we keep up our fire, but get almost concerned if we think that the thermometer inside is standing too high. A little over 40° by day, and if at night you find your thermometer has fallen as low as 34° you need not be alarmed—this would make a good average for the winter temperature of your greenhouse. Of course when a prolonged frost is about you must bank up your fire with ashes at night, and look into your greenhouse the first thing in the morning.

If by any mishap or carelessness you notice on entering, at seven a.m., that your thermometer is, say, at 30°, you will quickly see the results in the least hardy of your plants, which will look as if they had been blasted. Now, the hardier you succeed in rendering your plants, the better able will they be to resist the effects of some of those violent changes of temperature to which our English climate is subject. For this purpose, then, give air freely in mild weather. Of late years we have had one or two almost lovely Novembers, and to get well over this month is something to achieve. And even in ungenial weather some air must be admitted during the best of the day, say between one and two o'clock p.m



"THE MONTH WITH THE DREARIEST RING ABOUT IT."

Then, again, all through the winter water must be very sparingly administered. And among the most fastidious inhabitants of our greenhouse are our

THE CARE OF OUR CAMELLIAS.

camellias, which, as they are now swelling their blooms, must not be allowed to get dry, otherwise their buds would drop; too much artificial heat would have the

same effect upon them; while, lastly, you must certainly not let them be kept too wet. With all this they are fairly hardy, and the accidental admission of a degree of frost into your house would perhaps damage them less than many other of their neighbouring inmates. Still, they are like sturdy, spoilt children, and often give us a good deal of trouble. And next, get away all dead and decaying leaves from any of your plants which are in bloom.

Another winter precaution necessary in the greenhouse is that against damp. Now, this holds true in November perhaps more than in any other month of the year, for frequently we now have a rainy drizzle for days together, with a mild though saturated atmosphere; and if you see a little fur or mildew round any of your young stock of cuttings, it is time to act at once. Make up a fire, and at the same time open your lights. By this means you will get rid of much of the damp in your house, and you will incur far less risk of your stock damping off: indeed, it has often been said that in a climate like ours damp does more mischief than frost. Then, again, it is well to have a selection of plants whose habit is to bloom quite early in the year. Those, for example, that would bloom in the open in the early spring would bloom still earlier under your glass, where there is no frost at any time to check their proper development. Some hybrid rhododendrons, for example, are adapted for greenhouse culture, so that what with the early and the late blooming species, such as the salvia and the chrysanthemum, we ought never to be without some bloom in our house all the year round.

Enough then of our greenhouse: now let us go into the kitchen garden. Yonder is our seakale: cover it over with sea-kale pots, or with some large inverted flower-pots, and if sur-

rounded with hot stable-dung you will rapidly force on this popular vegetable; or, if every gardening appliance is not so ready to hand, you can utilise the dry leaves which just now are falling apace, and pile a large heap of them all round your seakale pots, though this, of course, is not so expeditious a method as the proper and more ordinary one of forcing. Next, if by any accident your crop of potatoes has not been all got up-for this is an October operation-delay not a day further in digging them. And then, by a little good management, salads-more particularly the smaller ones-can still be reared either under a hand-glass or in warm borders, where you can protect by litter: indeed, such as mustard and cress can easily be grown in the house-not the greenhouse, but the old home itself, where in a warm room the children would be interested and instructed by seeing how soon it grows.

Onions, too, that were sown at the end of the summer can be drawn quite small for your salads; for why are we to content ourselves with having only a profusion of salads in July and August, and hardly any for the remainder of the year? Apropos of the onions, those that were some time ago gathered and stored ought to be gone over, and any that are rotten, soft, or damaged in any way carefully removed from the rest. And coming for a few minutes to the fruit garden: a visit to the shed or store-room where our apples and pears are stowed away ought to be made, and all the decayed and damaged fruit removed. As far as possible the apple-room ought to be in some extreme or out-of-the-way corner of the house, for their fragrance is so pungent and persistent as in some cases to amount to almost a nuisance. A rough and dry shed in the garden itself, with shelves along its top for fruit-storing, is a great convenience and an inexpensive luxury: it answers the purpose at intervals of a shoe and knife house, a lumber-room, tool-house, potting-shed, compost-room, and so on, while with open doors you can in April harden off under its protection many plants for after bedding-out. Indeed, it is almost a necessity in the garden, and on wet days many of your operations can be carried on with comfort under its shelter.

THE GATHERER:

AN ILLUSTRATED RECORD OF INVENTION, DISCOVERY, LITERATURE, AND SCIENCE.

Correspondents are requested, when applying to the Editor for the names and addresses of the persons from whom further particulars respecting the articles in the GATHERER may be obtained, to forward a stamped and addressed envelope for reply, and in the case of inventors submitting specimens for notice, to prepay the carriage. The Editor cannot in any case guarantee absolute certainty of information, nor can he pledge himself to notice every article or work submitted.

A Watch Galvanometer.



The woodcut illustrates a pocket galvanometer for measuring electric currents of about an ampere or less. The construction of the apparatus does not essentially vary from that of the ordinary galvanometer of the laboratory or testing-room. The instrument is made so small that it easily goes into the pocket, and it is likely to be useful to electricians and ama-

teurs, especially now that electric lighting promises to become more general.

Natural Spheres.

At a recent meeting of the Genevan Society of Physics and Natural History, M. Mallet exhibited balls about 4 inches in diameter, one black, of vegetable origin, the other white, of mineral origin, and both of almost perfect sphericity. The black ball had been formed in a very curious manner. It was found inside a piece of oak which had been used as a mill-wheel shaft. A cavity had formed in the wood through decay or some insect, and the dust of the wood cohering through moisture, as the shaft revolved, gradually grew during the lapse of years into a round kernel. The white ball was a calcareous pebble found with

many others in a grotto, through which a torrent flowed into the Rhone.

Home Reading.

An effort is being made to establish a National Home Reading Circle, with the object of directing and aiding the private studies of the people, especially young persons, artisans, and general readers. Various courses of reading, approved by experts, will be recommended, and local centres organised, and encouraged to meet periodically for mutual improvement and recreation. Science, literature, and history will be the leading subjects.

Eucalyptus Honey.

This honey is the product of the small black bee of Australia, which frequents the Eucalyptus-trees with which the colony abounds. The honey is of a golden colour and almost candied in our climate; but when heated it becomes quite syrupy. Its odour and flavour clearly indicate its source (the Eucalyptus essences forming about one-third of its bulk) and classify it as a honey not like any other. This product is interesting to us from the fact of being yielded by those remarkable trees, the Eucalypts, the anti-malarial and purifying properties of which have caused them to be transplanted to other parts of the world with a view to rendering habitable unhealthy districts. The Eucalyptus owes most of its therapeutical properties to a

relief to pain is got by douching the part with turpentine.

XI. Frost-bite and Chilblain.—Frost-bite is rare in this country. The part frozen or rendered dead for a time is unusually pale. The first object is to induce reaction slowly, and for this purpose nothing is better than rubbing with snow, or towels wetted with cold water. Keep away from the fire or heat of any kind. If reaction comes too soon it will come with violence and great distress; swelling, blistering of the skin, and sloughing may follow.

A child found insensible in the snow may easily be killed by being taken into a warm room. Take him into a cold room, and use friction with cold wet towels, or even snow, to the limbs and whole body. He must be put to bed in a cold room, and not until respiration is fully established should even warm tea be given, far less brandy. When I read the fable of the kind-hearted farmer, who took the frozen snake home and thawed it before the fire, I really cannot wonder that the creature bit the man. If he thawed it at all he should have done so gradually, and not in a warm room. Remember the fable, reader, whenever you meet with a case of injury to the body from cold.

Chilblain is merely frost-bite in its second stage, and in a mitigated form. If the child had not thawed his hands or face or feet before the fire, perhaps there would have been no chilblain. Attend well to the health of children subject to chilblain. Dress them warmly but not heavily, and forbid them to stand about out of doors in winter. Do not let them toast their toes before the fire, nor come suddenly into a warm room from out-doors, nor wash in hot or very cold water. Unbroken chilblains should be rubbed several times a day with a liniment of ammonia and oil, with a little turpentine added, or the iodine and laudanum application. But blistered chilblains must be treated almost like burns, with oxide of zinc ointment on lint, and a light, soft bandage. If broken and in sores, a poultice may first be needed. A child subject to chilblains, &c., should see a doctor. Codliver oil, quinine, and iron in small doses may be necessary.

XII. Broken Bones.—Children are more subject to partial or green stick fracture than anything else. When such an accident is even suspected, the sufferer should be placed on a sofa in the easiest position, and the clothes gently removed or cut away. Little else can be done till the doctor's arrival, though, if there be much shock and no bleeding, warmth to the feet may be applied and wine-and-water given.

XIII. Dislocations.—These are accidents that few save surgeons can treat or even diagnose, though they can usually be distinguished from fractures by the rigidity or fixedness of all the parts. I cannot advise interference, although I fain would. Send for the surgeon, being sure at the same time to inform him of the supposed nature of the case.

XIV. Fits.—These are also difficult of diagnosis by the uninitiated, so lose no time in procuring skilled advice. Meanwhile the clothing may be removed and the child placed in a warm bath.

XV. Wounds are always alarming, and call for immediate action. Send for a surgeon. Meanwhile keep cool. If there is much bleeding, get the very coldest of water and apply in a stream. If this stops it, well and good; if it only partially does so, apply a linen pad and bandage tightly. Remove this in a few hours by carefully soaking it off with lukewarm water; if the bleeding continues, make a fresh pad and steep it in tincture of iron, and apply as before. Pressure, thoughtfully and skilfully applied, styptics and cold, are the only home remedies likely to do good in cases of bleeding from wounds. Never bind up a wound without washing it, unless it be a clean cut.

XVI. Bruises, &-c.—These are not dangerous, as a rule. Apply ice or a poultice if much pain; afterwards, rags steeped in arnica lotion. Do not leech. Sprains are successfully treated by rest in the horizontal position, and a lotion of lead and laudanum, procurable at any chemist's, or occasional bathing with warm water.



A WALK THROUGH A DECEMBER GARDEN.



TH most of us we fear that the idea of "a December garden" is not suggestive of anything particularly attractive or inspiriting. Somehow we get to associate the death of the year with the death of the garden. Spring, summer, autumn have come and have passed, and

now in December, our half-acre domain is lying in gloomy state: on one side of the little mansion, the only thing green is the lawn, studded here and there with coffin-shaped flower-beds, on a few of which perhaps are some standard roses, no longer gay and bridal and perfume-breathing, but skeleton-like, with only a gaunt stock supporting the little thorny naked arms that sway uneasily about in the wintry blast. Nor do the back windows of our castle command a much brighter view. There is the kitchen and fruit garden, the solitary verdant spot that meets our eye being perhaps the two rows of winter cabbage and winter spinach, out drilling as it were, and apparently



freely, and is altogether in better order after it has been dug than if done while wet, and the labour will certainly be lighter. The first care necessary is in the digging up of the shrub. As far as possible, retain all the fibres of the roots: a shrub got up roughly, and hurriedly torn away from its native soil, will run a good chance of failing after its removal. And next, dig the hole for the reception of your shrub sufficiently large to admit of these roots and fibres being spread out. A common error also is to have the hole deepest in the centre. This is wrong. Have all the soil at the bottom of your hole thoroughly pulverised, and instead of having it deepest in the centre, have rather a little cone of pulverised earth rising in the centre. And another thing to be remembered is that nothing is so injurious as deep planting. See, therefore, that what we will call the collar of the shrub is exactly on the same level with the soil as it was before removal. Indeed, planting too deeply is a fatal mistake. When in the act of transplanting, hold your shrub or plant in its proper position, and carefully spread the roots out and around. As you throw in the pulverised mould and soil, gently move the head of your plant backwards and forwards, so as to facilitate the working of the earth into and among all the fibrous roots; and if the soil does not readily fall among the roots, have a blunt stick in one hand with which you can poke the earth carefully among the fibres. When a fair quantity of earth has been thrown in, you can tread it in gently, but it will be at once apparent that if you begin treading in too soon you will break off many of the fibres; when all the soil has been filled in, you can tread a little more boldly. Lastly, your shrub or plant, more particularly if a tall one, should have some support, in the shape of two, or even three, sticks placed in an angular position against the stem to prevent it from swaying about in the wind and thus endangering the snapping of the more delicate of the fibrous roots. Of course, low or very dwarf shrubs will hardly, except in very rough weather, require any support at all. Thus much then with regard to our evergreen transplanting. In putting in many of them on a bed or embankment, see that the tallest are

in the back row, and necessarily the short ones imfront.

And now to mention some evergreens in particular which, coming as they do from all parts of the globe, give us a large and varied choice of habits, textures, and shade of colouring in their foliage. First we must bear in mind they vary much in their rate of growth; cedars are slow growers, but firs grow quickly; while laurels are also faster growers than holly. laurustinus is of great value to us as a flowering shrub, for early in winter it begins to bloom, and we prize much its snowy blossoms, which, with some of the gayer and paler though variegated laurel-leaves, and a mere handful of flowers from our greenhouse, make really a very gay table-decoration, at a time when flowers are very generally scarce with most of us who cannot boast of all the varieties of forcing-houses. And then the arbutus is a very obliging evergreen; for in winter it favours us with a greenish-white flower, followed afterwards by its pendent and scarlet berries. A large choice, too, we have among the golden yew, juniper, aucubas and euonymus, while, aswe have before hinted, many dwarf shrubs that give us gay berries we can readily obtain in pots, which we plunge, pot and all, into our flower-beds, taking care not to disturb any of the bulbs that we put in last October. The rhododendron of course does not give us its blossom in winter; still it is an evergreen, but, being of a dark colour, it is as well to have near it some brighter shrub of the laurel kind, for the sake of variety. A little ingenuity then, and device, will take away largely from the dreariness and desolation which otherwise in the winter months overshadows our flower garden. Palms again are noble objects as evergreens, but unhappily they are nearly all stove-plants, and only thrive well in a moist atmosphere and in a very high temperature, while the height to which they grow necessitates of course a house of proportionate altitude. While young they can be grown in large pots, but very soon a tub must be substituted for the pot. The soil that best suits them is a rich loam made up of lumps of turf and enriched with a little manure, while a few rough lumps of charcoal are also a good addition.

DOBSON'S PLOTS.



ET not the reader suppose that my title refers to any dark conspiracies of which my friend Dobson was the instigator. No; his plots were as harmless as himself, which is saying a great deal, for a more good-natured, easy-going fellow

than Dobson never breathed. The fact is, I wished to write a story, and the only obstacle in my path was the want of a plot. In vain I cudgelled my brains for something original in the way of love affairs, highway robberies, mysterious disappearances and discoveries; there was nothing new to be turned up by

me in that direction. The subject of madmen engaged my attention for a time; but I could think of no fresh combination of circumstances in connection with them. Happening one day in despair to mention my difficulty to Dobson, I was surprised at the sudden illumination of his countenance, which, sooth to-say, was not generally of the brightest.

"Hard up for a plot, are you, old man?" he ejaculated. "Well, you've come to the right quarter for one. My brain literally teems with plots, and if I only had time I would write the most original and amusing stories you ever read. But, as it is, dear boy, you shall have them all, and welcome."